VOL. 160 — NO. 15

APRIL 15, 1961

Telephony

THE JOURNAL OF THE TELEPHONE INDUSTRY

Ross H. Herrick, chief engineer, Lorain (O.) Telephone Co., demonstrates latest dialing equipment to Richard Laurence (left) of Ford Motor Division, Lorain Assembly Plant, and E. T. Nord of U.S. Automatic Corp., Oberlin, O. See page 45 for story of time-saving communication aids Lorain company demonstrated.

Circulation This Issue
14,166, of Which
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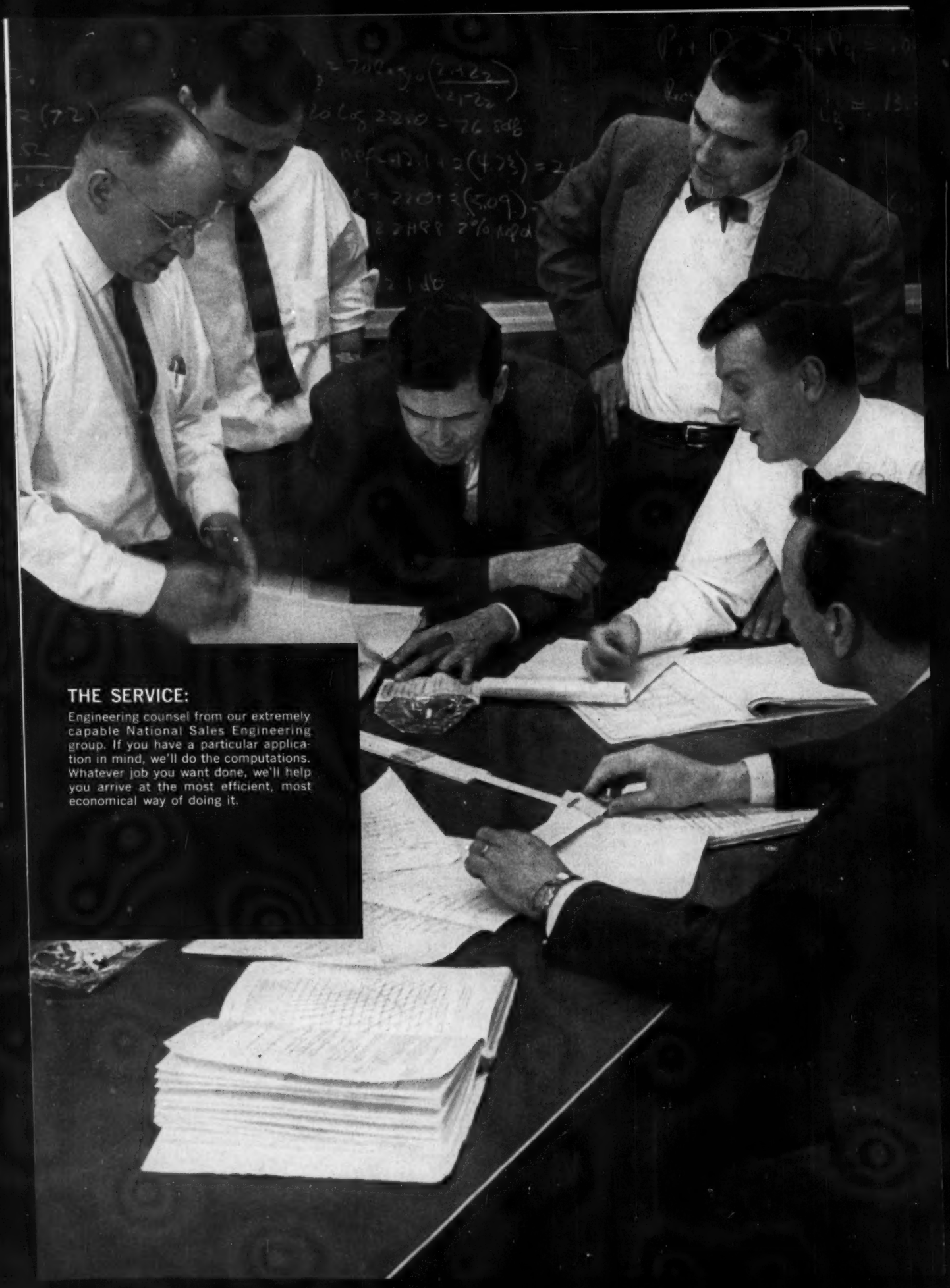

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FLASHES AND PLUGS

CAROLINE'S TELEPHONE TALENT. Caroline Kennedy, the three-year-old little lady in the White House, whose father is President, appears to like the American tradition of using the telephone. She especially likes to pick up the telephone and call her grandfather in Palm Beach, Fla.

President Kennedy was engaged in conversation with reporters recently when Caroline telephoned her grandfather. After an elaborate conversation, she asked the President, "Do you want to speak to Grandpa?"

Proud grandfather Joseph P. Kennedy reported as the conversation proceeded, the President suddenly asked his daughter, "Caroline, what are you doing?"

Turns out, Caroline is a two-telephone girl, and she had picked up another telephone and put a call through to a family friend in Palm Beach.

Lest the nation's taxpayers become concerned over this extra telephone traffic in the White House, Pierre Salinger, press secretary, has explained that all such calls are billed personally to her father, not to the White House.

•

PROBLEMS AND PLUG-UGLIES. Homer Shields of Chicago, an Illinois Bell Telephone Co. repairman, recently retired after 46 years service with the company, the last 30 of which he spent taking care of the telephones at the *Chicago Tribune*.

The *Tribune* reports that, like many a veteran telephone worker, he recalls memorable days. Mr. Shields started working for the company the day the Eastland, an excursion boat, sank in the Chicago River, with 812 lives lost.

In 1945, Franklin Delano Roosevelt died, and on that day, April 12, suddenly, no lines were available. Apparently, everyone in Tribune Tower had simultaneously picked up his telephone. Operators were desperate—what could they do? He told them they would just have to wait till some of the people hung up. Such a simple solution could fit only such a rare situation. This, he said, was his most frustrating day.

The most frightening day occurred about 20 years ago. He was working outside and had been sent to repair a telephone at a strange building. He was met at the door by two men with drawn guns.

They asked, "Who are you?" Shields identified himself as the telephone repairman. He was told to put his grip down; the men went through it, probably looking for a gun. Then, he said, they let him inside.

He did his work just as quietly and quickly as he could, and we venture to say, left without a word.

CHANGE OF ADDRESS

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Telephony

THE JOURNAL OF THE TELEPHONE INDUSTRY

1901 — 60 years — 1961

April 15, 1961

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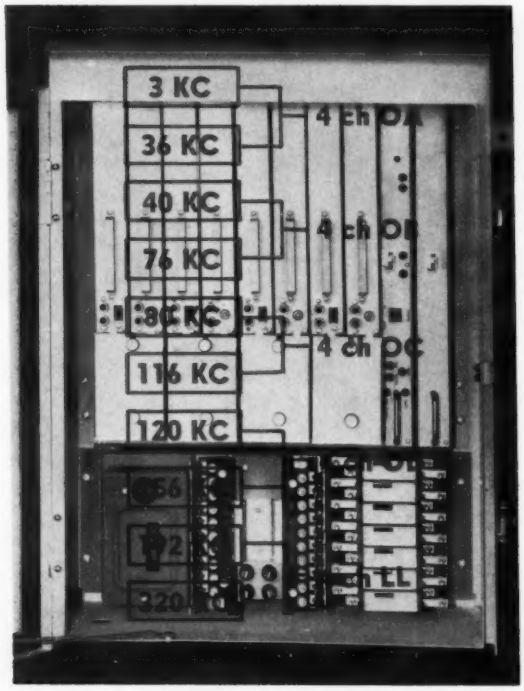

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SEE YOUR FORD DEALER'S "CERTIFIED ECONOMY BOOK" FOR PROOF!

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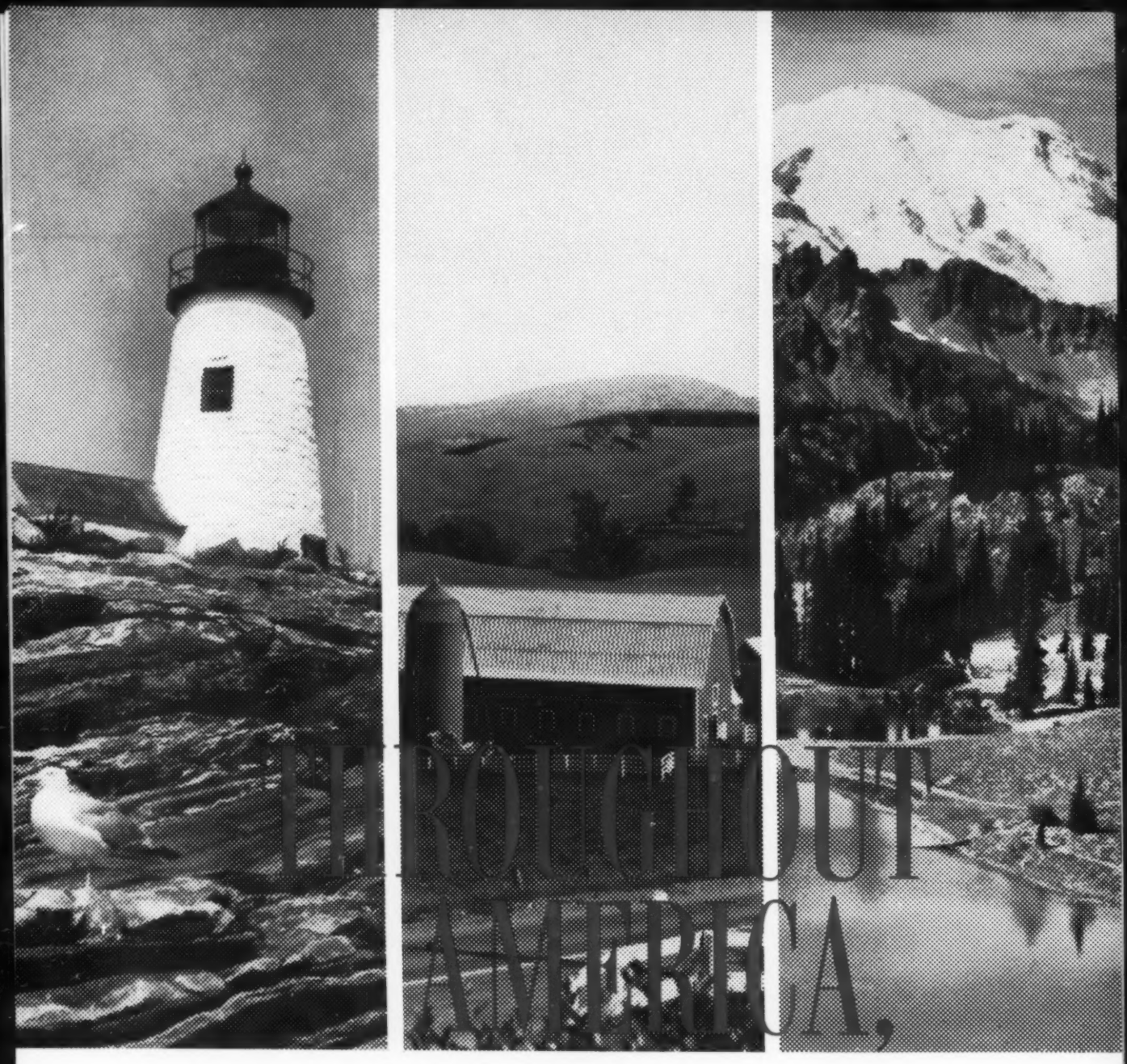
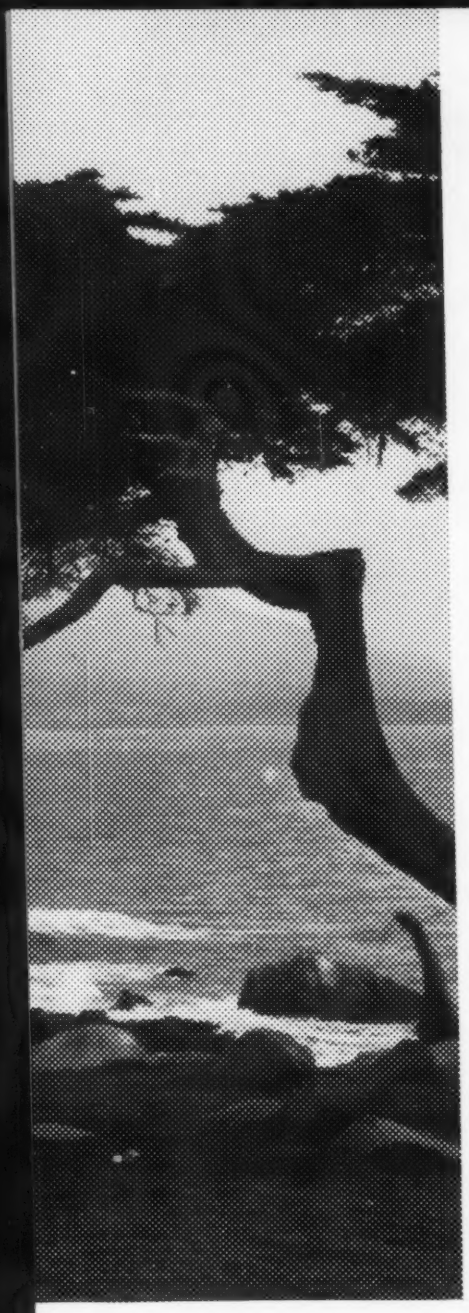


THROUGHOUT AMERICA,

ONE TELEPHONE STANDS OUT



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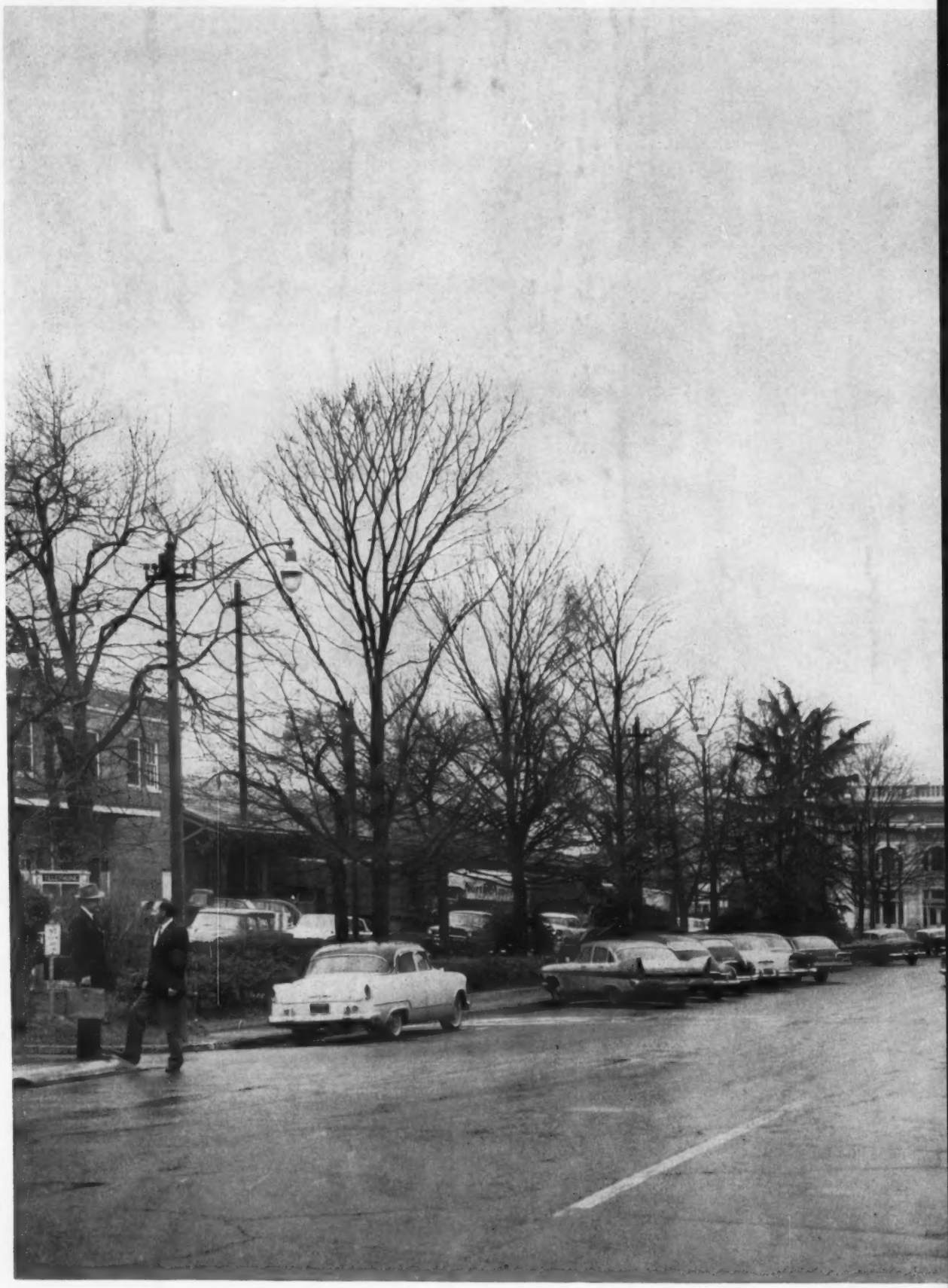

ALCOA BOOTHS BOOST REVENUE BY 15 PER CENT!

In Hickory, North Carolina, Central Telephone Company reports:

"More than half our outdoor booths are Alcoa Aluminum outdoor booths," says Mr. W. R. McGrew, division manager for Central Telephone Company, Hickory, N. C. "And some of them have been in use for more than four years. We estimate a *10 to 15 per cent increase in revenue* from Alcoa booths over others!

"Maintenance-free, easy to keep clean and neat, well lighted, Alcoa booths seem to actually *attract* customers. Doors don't stick . . . glass breakage is less . . . and we don't have to constantly repaint aluminum booths," Mr. McGrew avers.

Solidly built with Alcoa® Aluminum Extrusions, these booths resist normal wear and tear—and vandalism as well! The Alumilite* finish stays bright and clean. Aluminum won't rust . . . resists corrosion. If space is no problem, look to large and sturdy Alcoa outdoor booths. For indoor (and sheltered exterior) installations, check on the new Alcoa "Compact" booth—only 28¾ in. square! Whichever booth you need, call your telephone supply jobber . . . or write: Aluminum Company of America, 1780-R Alcoa Building, Pittsburgh 19, Pa. World-wide sales through Alcoa International, Inc., 230 Park Avenue, New York 17, N. Y.

*Trade Name of Aluminum Company of America

ALCOA ALUMINUM

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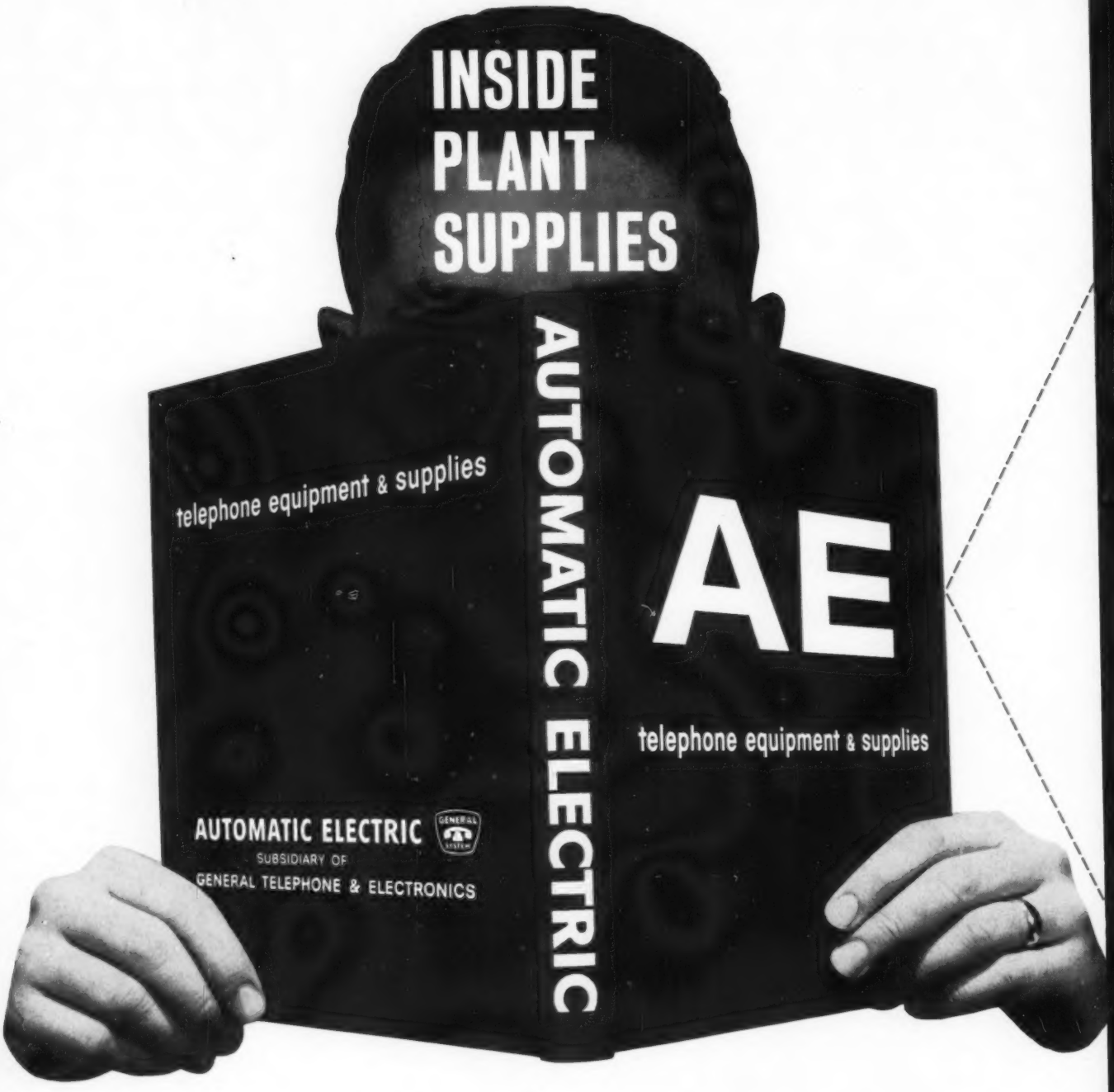

AE's 1961 Supply Catalog is the place to find everything you need for inside plant installations...everything from interior cable to plugs and jacks. In fact, the AE catalog is the best reference you have for all telephone equipment or supplies. Consult yours today! And remember, at AE you get *fast delivery* from a *large stock* of *famous brands.*

GENERAL CABLE WIRING CABLE

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ALPHADUCT INTERIOR WIRE

Tough thermoplastic covering over solid, annealed copper conductors. Colored rayon marker threads. In 2, 3, or 4-conductor assemblies.

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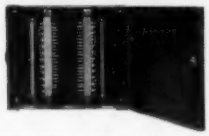

Standard 4-inch deep box is designed for easy surface mounting. Terminal strips have screw-type binding posts for distributing wires, soldering terminals for cable wires.

PLUGS AND JACKS

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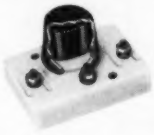

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40 lines, 6 links, 10 trunks. Uses 12-trunk keyset turret. All-relay Leich Dial System. Stock Delivery.

80A-S
Capacity of 80 lines, 9/12 links, 18 city trunks. Uses 26-trunk keyset turret. All-relay Leich Dial System. Stock Delivery.

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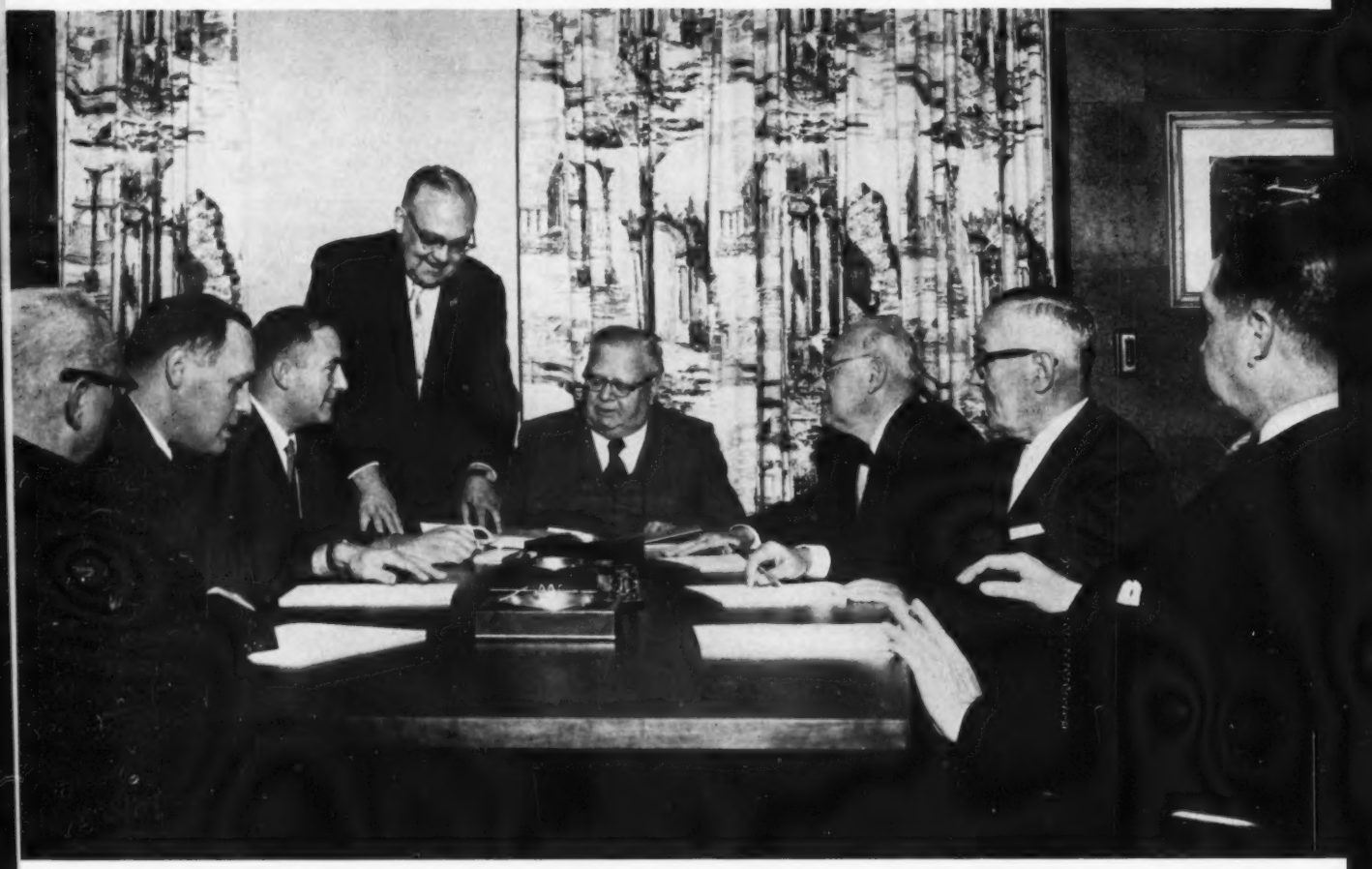

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IN THE NATION'S CAPITAL

BY FRANCIS X. WELCH, WASHINGTON EDITOR
AND EDITOR, PUBLIC UTILITIES FORTNIGHTLY

FCC ponders space communications licensing policy. . . . Justice Department looks at project from anti-trust standpoint. Court upholds pipeline merger. GAC questions $8.8 million government telephone loan to Uruguay.

THE FEDERAL Communications Commission may have some different ideas than the Justice Department as to whether one or more telephone or other communication systems should be licensed to operate space satellites. In a recent order, the FCC has indicated that it may limit its authorization of microwave frequencies to a single satellite system. The Justice Department, on the other hand, had permitted a statement to get into the press last month raising the question, but not necessarily deciding the point, as to whether a single network could be lawfully authorized to operate in this area.

The implication was that such a single system setup might have to be considered in the light of the anti-trust laws.

This is not to suggest that there is any essential conflict or incompatability between the steps taken by the FCC and the question raised by the Justice Department. After all, the FCC has the responsibility of a traffic cop to see that too many of these satellites are not orbited in uncoordinated fashion. But this does not necessarily mean that the operations would be confined to a single corporate system, such as the Bell System which is considerably ahead of others in its immediate planning and readiness to go. Indeed, the FCC statement, addressed to various companies interested in space satellite operations, suggested that it might be necessary for more than one company to come to an agreement in order to permit a coordinated and orderly development in this field.

It stands to reason that if one applicant were to use one basis, or standard of operation, with a certain number of satellites, orbiting a certain distance from the earth, while another applicant would like to field a larger or smaller "team" of satellites at differently pitched orbits, the situation might get out of hand even though there is plenty of space up there. In his recent statement on this situation, the president of American Telephone & Telegraph Co., Frederick R. Kappel, used those very words and said that the Bell System did not expect and could not possibly occupy the entire field. So, physically speaking, there is still plenty of room for everybody. It is orderly coordination which is the main concern of the FCC.

The Justice Department, on the other hand, has taken no definite view on the matter and probably will not do so, for the immediate future, now that it has signaled an alert on the anti-trust front.

The FCC has ordered a formal inquiry into the problems of regulating space communications systems. Interested parties were invited to file comments by May 1. The communications companies which have shown an interest in this field include not only telephone, but telegraph, radio and television projects. Such a system of bouncing signals off space objects would permit transmission of live TV across the Atlantic, for instance, and provide more facilities for the mounting traffic demands of international telephone service.

Companies interested include AT&T, Radio Corp. of America, General Electric Co., and International Telephone & Telegraph Co. The FCC has the duty of licensing interstate and U. S. international communications companies and regulating their rates and operations.

The commission's inquiry order suggested that U. S. space communications will progress faster if the interested companies get together on the proposition. A large number of communications satellite systems appears unlikely in the near future because of "the substantial capital investment which will be necessary," the heavy demands of many nations for space in the limited radio spectrum, and other factors, the FCC said.

"Assuming the organization of a single or limited number of satellite systems will best serve the public interest," the commission said, it still is not sure how such a system or combine would square with U. S. anti-trust laws and with traditional "maintenance of competition in international communications." Interested parties have been asked to comment on these questions and to present practical suggestions on how a combine might be formed. The FCC has asked the Justice Department for an opinion on how a joint space effort would be affected by the anti-trust laws.

Pipeline Merger OK'd

It might be of passing interest to note that the Justice Department recently lost a U. S. Circuit Court of Appeals verdict in another anti-trust situation where it found itself opposed

to the view of a federal regulatory agency—this time the Federal Power Commission. The circuit court of appeals for the District of Columbia has upheld the FPC's approval of the El Paso Natural Gas Co. merger with the Pacific Northwest Pipeline Corp.

The 2-to-1 opinion, written by Judge Prettyman, is almost certain to go up to the United States Supreme Court for final determination. Judge Prettyman insisted that his court was not deciding the broader question of whether the FPC's approval of the merger has the effect of immunizing the combination from anti-trust separate prosecutions by the Justice Department. But under the Natural Gas Act the Federal Power Commission must approve acquisitions of assets by natural gas companies under its jurisdiction.

Mergers brought about by an exchange of stock do not come within this field of control, although the Justice Department feels that the Clayton Anti-trust Act gives it a right to challenge stock mergers where they tend to lessen competition. Such a suit is still pending before the federal district court in Utah, originally filed in July, 1957.

In answer to objections of the state of California and the Justice Department, Judge Prettyman said the FPC had carefully decided that public interest considerations outweighed anti-trust objections to the El Paso-Pacific Northwest merger. The dissenting opinion by Judge Fahy said the FPC should not have approved the merger where it appeared to have been brought about by improper stock acquisitions, at least until the federal district court in Utah passes on that.

Bell-Independent Toll Agreement

After considerable negotiation, the United States Independent Telephone Association has won a satisfactory agreement with the Bell System on the matter of increasing the compensation which the Independents will receive from toll calls originating or terminating in Bell and Independent service areas, respectively. It is estimated that the latest USITA-Bell agreement will provide an interim annual increase of approximately 10 million dollars in message toll settlements based on 1960 traffic volumes, assuming all companies were utilizing average schedules (See other pages in this issue).

A number of Independent telephone companies are settling on other bases. But it is estimated the adjustment will provide an increase of approximately 7 million dollars over-all for companies using 1959 average cents-per-message schedules. The interim increase will be applicable for a period of one year, during which a nationwide study of the cost of "A" and "B" schedules, line haul and automatic ticketing will be undertaken jointly by the USITA and the Bell System. The average schedules will be adjusted to the results of the study upon its completion.

Convention Calendar
1961

Association	*Date*	*City*	*Hotel*
Wisconsin	May 2 and 3	Milwaukee	Plankinton House
Indiana	May 10 and 11	Indianapolis	Claypool
Illinois	May 17, 18 and 19	Peoria	Pere Marquette
Kansas-Missouri*	May 22 and 23	Kansas City, Mo.	Continental
Pennsylvania	June 5, 6 and 7	Pocono Manor	Pocono Manor Inn
Washington-Oregon*	June 15 and 16	Victoria, B. C.	Empress
New York	June 19, 20 and 21	Schroon Lake	Scaroon Manor
California	June 26, 27, 28, 29 and 30	Honolulu, Hawaii	Hawaiian Village
Alaska	Aug. 21, 22 and 23	Palmer	Unannounced
Tennessee	Sept. 6 and 7	Nashville	Hermitage
Arkansas	Sept. 11 and 12	Hot Springs	Arlington
Georgia	Sept. 14 and 15	Jekyll Island	Corsair Motel
Michigan	Sept. 19, 20 and 21	Grand Rapids	Pantlind
Nevada	Sept. 19, 20 and 21	Elko	Stockmen's
Rocky Mountain	Sept. 20, 21 and 22	Boise, Ida.	Owyhee
West Virginia	Sept. 26 and 27	Wheeling	Olgebay Park
USITA	Oct. 8, 9, 10 and 11	Chicago	Conrad Hilton
South Carolina	Oct. 23 and 24	Clemson	Clemson House
Virginia	Oct. 26 and 27	Roanoke	Roanoke
Oklahoma	Nov. 8 and 9	Skirvin	Oklahoma City
Alabama-Mississippi	Nov. 13 and 14	Birmingham	Thomas Jefferson
Florida	Nov. 26, 27 and 28	Miami Beach	The Carillon
North Carolina	Dec. 4 and 5	Pinehurst	Carolina

*Joint meeting

U. S.-European Satellite

The United States, Great Britain, and France early this month announced a cooperative program for transatlantic testing of U. S. communications satellites. The British General Post Office and the French Center for Telecommunications Studies will provide one ground station each with extremely accurate tracking and antenna-pointing equipment. Site surveys are now being conducted.

The British and French stations will transmit multi-channel telephone, telegraph, and television signals which will be relayed or reflected by U. S. satellites to be launched in 1962 and 1963 in Projects Relay and Rebound. The three nations said other countries are welcome to participate if they wish to provide additional stations. In Project Relay, the National Aeronautics & Space Administration will launch 100-pound satellites capable of receiving and rebroadcasting signals.

$8.8 Million Phone Loan to Uruguay

Congressional investigators are raising their eyebrows over a loan of 8.8 million dollars by the federal government to improve Uruguay's telephone service. In the capital city of Uruguay, Montevideo, more than 6 million dollars are being used for telephones in residential areas. The rest is for industrial, business and official telephones.

The watchdog over spending for Congress, the General Accounting Office, wants to know how the Uruguayan economy will benefit from more home telephones in Montevideo. The loan was made in 1959 by the Development Loan Fund, a U. S. foreign-aid lending agency created to speed economic growth in underdeveloped countries.

The Development Loan Fund decided the telephone project would "facilitate the conduct of business and stimulate industrial, commercial, and social activities which had been hindered by Uruguay's inability to keep up with the increasing demand for telephone service." GAO investigators complained, in a report to Congress, that "Aside from these general considerations, the loan files contain no specific data on the benefits to be obtained from expanding residential telephone service."

A spokesman for the Development

Loan Fund said there was "good economic justification" for the loan. He stated: "Obviously the commercial community in Uruguay will benefit, although it is impossible to give it in dollars and cents." The GAO also criticized a 23-million-dollar loan made to Morocco last year to help finance an irrigation project. The investigators said the Development Loan Fund failed to consider that more money would be needed to teach Moroccan farmers how to use an irrigation system.

Both loans were approved by the Development Loan Fund's board of directors. This board was headed by Douglas Dillon, the Under Secretary of State and now Secretary of the Treasury. The Development Loan Fund was created in 1958 and as of June, 1960, had made 117 loans worth nearly 1 billion dollars.

Tracking Satellites

NORAD (North American Air Defense Command), which is now tracking objects orbiting in space as well as thousands of manned aircraft flying across the continent, is learning "how high is the sky." Early in February, NORAD — through the Navy-developed and operated Space Surveillance System (SPAZUR) — was watching 35 objects orbiting the earth in space. Only three were from Russia and 32 were of United States' origin.

The Air Force-developed and-operated "Space Track" data collecting facility at L. G. Hanscom field in Bedford, Mass., is tied in with NORAD and SPAZUR. Through SPAZUR and space track facilities now reporting directly to NORAD, the instruments needed to evaluate the aerospace threat to the security of North America on a minute-by-minute basis, day in and out, are now available.

By tracking all orbiting objects at all times, the sudden appearance of one or more unidentified objects would be noted instantly. The job of the highly-trained specialists of the SPAZUR and Space Track systems is to evaluate quickly the type, speed, orbital route, and probable objective of the newcomers to determine whether an aerial attack is on its way.

The SPAZUR system's principal components are the data acquisition network, comprising a two-part electronic fence from Georgia to California and an operations center at Dahlgren, Va. The network consists of six stations precisely located along a great circle from San Diego, Cal., to Fort Stewart, Ga. Its commanding officer is Navy Captain D. G. Woosley. One gap remains in the space detection net —an area between the Mississippi River and New Mexico. It will be plugged this year by one of the world's largest transmitters.

Under the Naval Research Laboratory's direction, the new transmitter (a 560,000-watt device) will be built about 35 miles southwest of Wichita Falls, Tex. The transmitter will be five times as powerful as the largest TV transmitter and will feed one of the world's largest antennas. Satellites, which can now make an undetected pass over the "gap," will be spotted through use of the new transmitter station, working with existing receivers.

REA Approves Three Loans

Three telephone loans totaling $1,269,000 were approved by the Rural Electrification Administration during the final week of March, as follows:

Alabama Telephone Co., Fayette; $1,100,000; Mar. 27.

With the aid of this loan, the company will be enabled to furnish initial service to 2,030 subscribers in its Brilliant, Double Springs, Hackleburg and Haleyville exchanges. In addition, the borrower plans to make improvements to its system to provide a higher grade of service to all of its subscribers. Facilities to serve the additional subscribers will include a new dial central office at Brilliant. The company also plans to replace the existing buildings at Double Springs and Hackleburg with new dial central offices.

REA loans to the Alabama company will help make possible new and improved service to 11,491 subscribers. Fourteen of the proposed fifteen exchanges now furnish dial service to approximately 9,475 subscribers.

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Taylorstown (Pa.) Telephone Co.; $110,000; Mar. 29.

These funds will help the company to furnish initial service to 291 subscribers. Facilities required will include additional central equipment.

REA loans to Taylorstown will help make possible new and improved service to 847 subscribers. The company is now furnishing dial service to approximately 57 subscribers through its two exchanges at Buffalo and Taylorstown.

•

Richland-Grant Telephone Cooperative, Blue River, Wis.; $59,000; Mar. 29.

These and funds from prior loans will be used by the borrower to aid in improving service for 69 subscribers and furnishing initial service to 18 subscribers.

Richland-Grant has recently acquired, with its own funds, the outside plant of the following small companies: Sylvan-Soldiers Grove Farmers Mutual Telephone Co., furnishing magneto service to 69 subscribers, and 55 switchers; the Clayton Mutual Telephone Co. and the Home Mutual Telephone Co., serving 29 switchers.

The 69 subscribers of Sylvan-Soldiers Grove company will receive improved service with the aid of this loan. The others will continue to receive switching service from the Soldiers Grove Cooperative Telephone Exchange.

The Richland-Grant cooperative proposes to do some construction and rebuilding of lines acquired. Sylvan community will be served from the borrower's Sabin exchange. The existing dial office building at Sabin will be moved to a point mid-way between the two areas.

Loans to this borrower will help enable it to furnish new and improved service to 714 subscribers. The three exchanges of the system are now furnishing dial service to approximately 535 subscribers.

Chamber To Consider Rules

The new president of the Chamber of Commerce of the United States is Richard Wagner, and no relation to the 19th century German operatic composer of the same name. The chamber's Mr. Wagner has been thinking about business ethics, as have many other American business leaders. He thinks the chamber should go over its ethical code again in the light of recent history. There have been some striking

(Continued on page 47)

Controlling the Cost of General Services Through

Efficient Management of Vehicle Fleets

By W. V. BENJAMIN*

DURING THE PAST two decades, one of the principal problems of all business management has been the constant increase in the cost of doing business. In the telephone business, it has been possible to at least slow down the rate of increase in most operations through mechanization, improved materials, and more efficient methods. However, one part of the business that has continued to increase, in spite of the best efforts of management, is both the capital investment, and the operating expense of the motor vehicle fleet.

An analysis of these costs over the past 10 years will generally show a trend about as follows:

(1) Total investment in motor vehicles more than doubled.

(2) Total operating expense more than doubled.

(3) Total number of vehicles increased by more than three-fourths.

(4) Average composite investment per vehicle increased by slightly less than one-half.

(5) Average expense per vehicle increased by about one-third.

These are, of course, general trends and will vary with individual companies. However, the basic point is that both investment and expense have shown a steadily rising trend which has been greater than most other costs in the business.

It is obvious that one of the reasons for the increase in these costs is that this is part of the cost of mechanization which has made possible reductions in other phases of operations. This is particularly true in the construction force where there has been a basic change in the size of crew used. The typical line construction crew of 10 years ago was a foreman and four men, equipped with one winch truck. The modern version is a two-man crew, equipped with a winch truck which represents about the same capital investment as the truck used for the larger crew, and a foreman who is individually motorized with either a pickup, or a passenger car. Although there are many cases where the foreman may supervise more than two of these two-man crews, there are also cases where travel distance, or other factors, limit the number of crews to two per foreman.

Here is a typical comparison of what this change in construction crew makeup has done to the investment in motor vehicles. The current cost of a winch truck equipped for four men and a foreman, is around $11,000, or $2750 per craftsman. The current cost of two two-man winch trucks, plus the pickup for the foreman, is about $22,000, or an average of $5,500 per craftsman.

Similar comparisons could be made for the change from two-man splicing crews to one-man crews, or the general use of one vehicle per craftsman in the installation and maintenance forces. While no one will dispute the fact that this increased motorization has been a factor in increased productivity, an actual cost comparison between the total increase in costs, and the actual increased production resulting from it, is a problem that would challenge the capabilities of even a modern electronic computer.

The purchase of one additional truck for the fleet is, in itself, a simple cost that can be readily evaluated. However, the addition of this truck starts a chain reaction that generates a lot of additional costs that are usually overlooked in most cost analyses. The truck has to be equipped with ladders, test sets, and small hand tools, so this results in an increase in both capital tool investment, and tool expense. The truck, also, has to be equipped with material, and this results in an increase in the investment for material carried in field stock. You have to have some place to keep the truck during non-working hours, so this either results in increased garage rental, or else accumulates with other additions to the point where you have to build a new service center building to take care of these additional vehicles. The truck uses gasoline, oil, and requires frequent repairs and servicing, so this increases the operating expense, as well as the increase in depreciation charges.

If the addition of this truck actually results in increased production, sufficient to offset all of these costs, and to pay for a fair return on the additional capital invested, then management's decision to purchase the truck was a sound business investment. If, however, the two two-man line crews, or the two one-man splicing crews, spend a large part of their time working together at the same job location, then the principal result of the increased motorization has been to make it possible for these individual crew units to drive to the job location in two trucks, instead of one. Certainly, there will be jobs where it

Fourth of Series

This article is the fourth and last of a series on "Controlling the Costs of General Services," by Mr. Benjamin.

The first article appeared in the Feb. 18 issue. The second article on "Efficient Management of Material" was published in the Apr. 1 issue and the third on "Efficient Management of Buildings" appeared in the Apr. 8 issue.

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will be necessary to double up these smaller crews, because of the work requirements, but if the increased motorization is to be profitable, the frequency of such occurrences must be kept at an absolute minimum.

As we approach the point where most of the outside craft forces are individually motorized, the problem of effectively utilizing the motor equipment becomes increasingly difficult. Craftsmen do not work every day, because they take vacations, attend training classes, and are absent because of illness or other personal reasons. If the local force is fully motorized, this means that when the craftsman is not working the vehicle is idle also. Regardless of whether or not the non-productive time of the craftsman is paid, the fixed charges for the truck go on until the vehicle is disposed of. These fixed charges which include depreciation, license fees, garage costs, and a return on the capital investment of the vehicle, tools, and material, amount to much more than the direct expense associated with the actual running of the vehicle. Consequently, the more the productive hours of use for the vehicle, the lower is the average cost per productive hour.

The evidence of idle motor equipment can be seen in many large service center buildings during regular working hours. Local supervision has a good explanation for every vehicle that is not in use for that particular day, but there is no actual measure of the total amount of idle time for the entire local group of vehicles. For example, in a group of 18 craftsmen, fully motorized, with an average of three weeks vacation per man, this vacation time alone will actually result in the equivalent of one non-productive vehicle over the entire year.

It is recognized that local supervision is in the best position to determine the most efficient level of motorization for the local force, since it knows what part of the work load requires two men, and the extent to which non-motorized forces can be used effectively. However, the tendency is to look at the problem from the viewpoint of production alone, rather than from a balanced management viewpoint, which considers total costs and total production. The additional costs associated with adding a truck to the group will not show up in any local operating index, so if it will increase production at all, it appeals to local supervision, regardless of whether the increased production will justify the cost. Also, as long as there is no index on idle truck days, local supervision is not too concerned about the number of trucks standing idle in the garage during the day.

Recognizing that local supervision

will tend to promote full motorization of outside craft forces, on a car per man basis, how then can a reasonable balance be maintained between force and number of vehicles? It will have to come, largely, from higher levels of management which is constantly questioning the utilization of existing vehicles, and which will not support requests for additions until the need has been proved by a factual analysis that will justify the added costs. When higher levels of management are on field visits, they should be concerned when they observe idle trucks in the service center building. Sufficient questions should be raised to determine whether it is actually an unusual day, or whether it is an indication of too much motorization.

In a typical telephone fleet about one-fourth of the total vehicles are passenger cars. Although mechanization has had little effect upon the increased requirements for this type of vehicle, the total passenger cars in the fleet has been increasing almost as fast as the rest of the fleet. Just as in our private lives, people have stopped walking, and stopped using public transportation, so too in business the automobile has become the accepted method of travel up to the point where the distance is sufficient to justify air travel.

The use of passenger cars has become so much a part of our business activities that those employes who do any appreciable amount of traveling, have a passenger car assigned to them individually. For those who have less frequent occasion to travel, there is usually some arrangement whereby they can obtain a company car upon short notice. The cost is secondary to convenience, and availability, so there is constant pressure to provide more passenger cars. Just as a general indication of the cost, a standard passenger car traveling around 13,000 miles a year, represents a total operating cost of about $100 per month, without any consideration to the return on an investment of about $2,000.

Various methods have been tried to take care of the passenger care requirements with a minimum number of vehicles, but most of these procedures fail to accomplish their purpose because of the administrative problems of effective control. One of the most common methods is the provision of a pool of passenger cars which is intended to serve a large group of employes who have less than a full time requirement for a car. Theoretically, this should increase the utilization of the passenger cars, and reduce the number required. In actual practice, however, it may result in making cars more readily available to those who get there first, regardless of the real necessity for using a company car.

In other words, the effectiveness of a pool of passenger cars is dependent upon the administrative control of the assignments. Obviously, the assignment procedure must be a simple one so that employes who really need a car, can obtain it without a lot of "red tape." If an elaborate control procedure is established, it not only complicates the arrangement for obtaining a car, but may result in increased administrative costs which more than offset any savings involved. Consequently, the usual compromise arrangement is to place the responsibility for assignments with a clerical employe who merely takes care of the routine procedure, so that, in effect, each employe who calls for a car has the full responsibility for determining whether or not he needs a company car. If he decides that he wants to use a company car, rather than public transportation, to travel from one office to another in the same city, and leave the car in the company parking lot all day, he may do so as long as there is a car available in the pool.

These are some of the difficulties associated with the operation of passenger car pools. If an effective control procedure can be established, without adding too much to administrative costs, and without making it too difficult to obtain a car, then it will reduce motor vehicle costs. Without such control, it may still be the only practical way to take care of the transportation requirements for a headquarters, but it will not be an efficient operation. It should also be recognized that if the number of cars in the pool is large enough so that you can generally take care of all requirements, there are too many cars being used in the pool. Good utilization requires sufficient vehicles to meet nor-

mal requirements, with a procedure for obtaining additional cars by either renting, or borrowing from other sources, to meet peak loads.

Efficient fleet operation starts with an effective control of the number of vehicles used, and a procedure for making sure that each vehicle justifies its existence by the actual job requirement. The next step is to minimize the capital investment required to purchase the vehicle. This involves purchasing policies, as well as the kind of vehicle to be provided, and the additional equipment to be provided.

Perhaps, no other part of fleet management is quite so controversial as the procedure to be used in purchasing new vehicles. Few people, outside of those directly involved, take too much interest in how most of the material and equipment, used in the business, is purchased. However, when it comes to purchasing automobiles, everyone wants to get into the act. Liberal advice on how these purchases should be made will be generously offered by representatives of various departments of the company, as well as by the automobile dealers themselves, and even the general public. Certainly, there are a lot of factors that need to be considered, and there is probably no standard procedure that would be equally effective in all companies.

Management must decide whether it wants to use competitive bidding, and if so, whether it should be on a company wide, or a local basis. It must also decide whether it wants to purchase replacement vehicles on a trade-in basis, or whether it prefers to purchase the new vehicles outright, and make its own arrangements to dispose of the replaced vehicle. Since there are various manufacturers providing similar vehicles, management must decide whether they should include all of these manufacturers in their purchases, or whether they should restrict the purchase to only those makes which appear to be most effective for their particular operation.

Whatever decisions are made, the important point is that they be made upon the basis of a sound economic evaluation of all the factors involved. If management decides that it wants to follow a purchasing policy that results in some increase in the capital investment of motor vehicles, then it should certainly know how much it is paying for this procedure, so that the cost against the other factors involved can be evaluated.

In order to maintain the investment in motor vehicles at a minimum, each vehicle to be purchased must be analyzed on the basis of what size of vehicle, and what additional equipment is actually required for the job that the vehicle will be expected to do. The fundamental purpose of the vehicle is either to provide basic transportation, or to provide a traveling storeroom for the tools and material required by the craftsman. For special purposes, such as line construction work, it may also be necessary to provide power for the operation of mechanical, or hydraulic equipment. The basic objective is to provide the type of vehicle that will meet the job requirement with a minimum of investment, and a minimum operating expense over the entire life in the fleet. Consequently, if a one-half ton truck with a six-cylinder engine will adequately meet this objective, there is no justification for purchasing a three-quarter ton truck with an eight-cylinder engine.

If a construction truck is going to be used on the type of work that very rarely requires the use of a winch, then a non-winch truck should be provided, even if it means that for those few occasions where a winch would be required, some other arrangements would have to be made to take care of such work. If there were some simple device that could be placed on existing winch trucks to show the actual hours of winch usage, the results would probably show that, in some cases, the amount of usage is not enough to justify the added investment cost of the winch and power drive equipment.

The decision on what optional equipment to provide on the vehicle should be made with full recognition of the total number of vehicles that will ultimately require this equipment, once the decision is made to provide it. For example, if you decide to add a $5.00 optional item to the purchase of a vehicle, that does not seem, in itself, to be too important. However, if there are 1,000 vehicles of this type in the fleet, then the real problem is whether an additional expenditure of $5,000 is justified. This is particularly important when considering such vehicles as the regular installation and maintenance truck which represents about two-thirds of the total vehicles.

About one-half of the total operating expense of a motor vehicle consists of the type of expense that generally varies with the number of miles driven. This expense, which is usually called running expense, includes gasoline, oil, tires, repairs, greasing, and washing or polishing. Although these expenses vary with the amount of usage, they are also partly controllable by the effectiveness of the over-all management of the fleet. Gasoline expense will depend to a large extent, upon the size of engine used, and how efficiently it is kept operating. Oil expense will depend upon the frequency established for periodic changes. Tire expense will depend upon the driving habits of the operator, and the extent to which recapping is used to replace tread wear. Repair expense will depend upon the proper selection of the right vehicle for

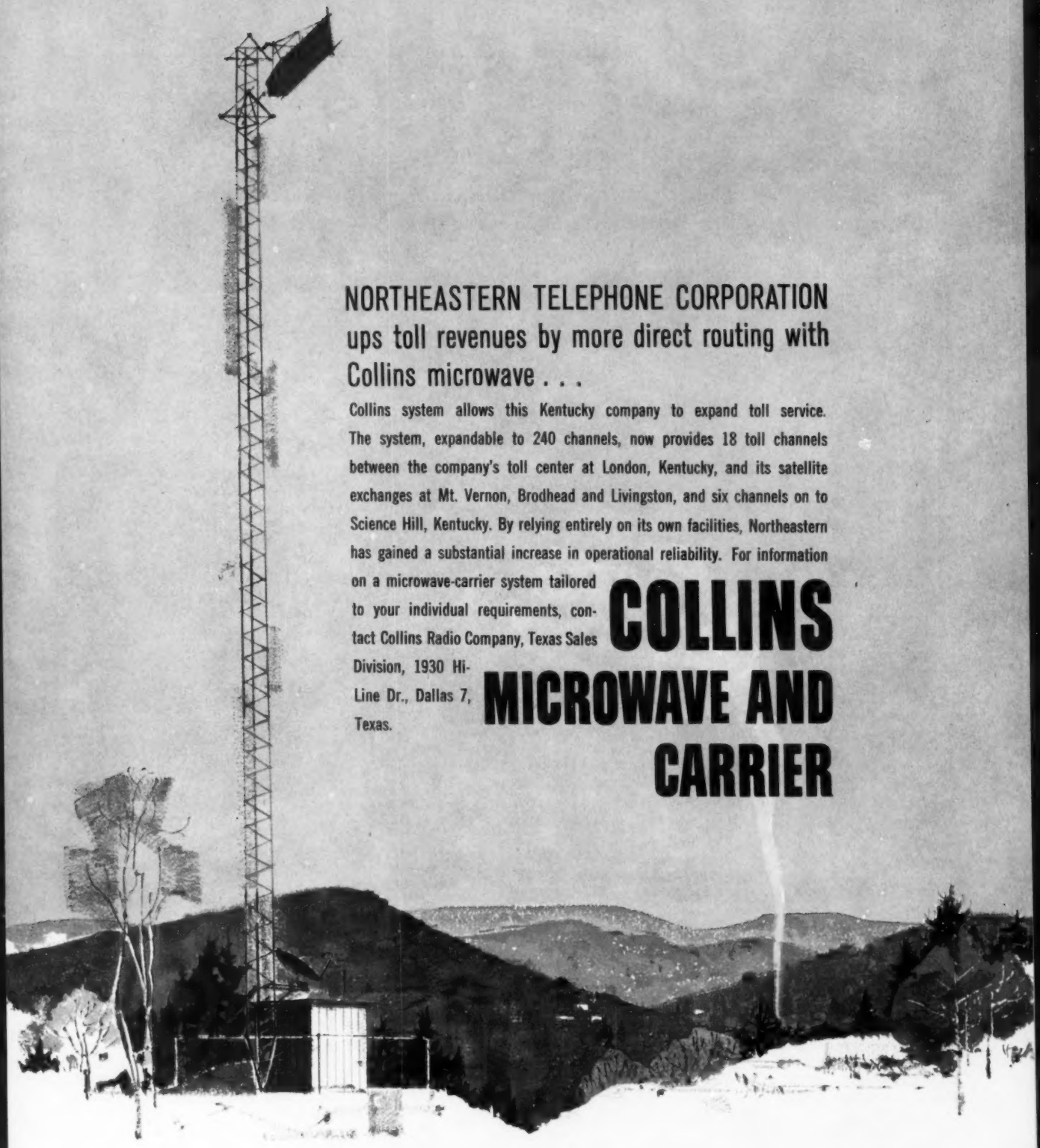
(Continued on page 48)

A CUSTOMER

By Ben Smith*

- **A customer is the most important person ever in your office, in person, by mail, or by telephone.**
- **A customer is not dependent on us; we are dependent on him.**
- **A customer is not an interruption of our work, he is the purpose of it.**
- **We are not doing him a favor by serving him. He is doing us a favor by giving us the opportunity to serve him.**
- **A customer is not an outsider to our business, he is part of it.**
- **A customer makes our business. Our success could depend on how we treat the customer in our everyday dealings.**
- **A customer is not a cold statistic, he is a flesh and blood human being with feelings and emotions like our own.**
- **A customer wants to be treated just as we want to be treated—fairly, honestly, courteously, promptly.**
- **A customer is a person who depends on you to suggest and provide adequate, usable telephone service and yellow pages advertising. It is our job to provide all possible information to assure him that we are interested in helping him solve his communications problems.**

***Mr. Smith is General Merchandising Manager of Southwestern Bell Telephone Co.**



NORTHEASTERN TELEPHONE CORPORATION ups toll revenues by more direct routing with Collins microwave . . .

Collins system allows this Kentucky company to expand toll service. The system, expandable to 240 channels, now provides 18 toll channels between the company's toll center at London, Kentucky, and its satellite exchanges at Mt. Vernon, Brodhead and Livingston, and six channels on to Science Hill, Kentucky. By relying entirely on its own facilities, Northeastern has gained a substantial increase in operational reliability. For information on a microwave-carrier system tailored to your individual requirements, contact Collins Radio Company, Texas Sales Division, 1930 Hi-Line Dr., Dallas 7, Texas.

COLLINS MICROWAVE AND CARRIER

COLLINS

COLLINS RADIO COMPANY • DALLAS, TEXAS • CEDAR RAPIDS, IOWA • BURBANK, CALIFORNIA

"Don't Forget the Best"

Americans must rededicate themselves to protect the heritage left by the nation's founding fathers — "(1) Belief, faith and trust in Almighty God, and (2) Respect for the integrity, the rights, the privileges, and the responsibilities of man as an individual."

By FRED A. MILLER*

AMONG THE LEGENDS and folk tales that are so common in the culture of Western Europe there is one that has always had a deep interest and appeal for me.

It tells the story of a poor shepherd boy watching his flocks on the mountainside. As he walks along his gaze is held by the brilliant blue of a flower growing amongst the rocks of the cliff. Attracted by its color he reaches out, picks it, and studies it closely to fully admire its delicateness and beauty.

Then he turns again to the rocky wall to see if he can find another. To his amazement, a portion of the rocky cliff has disappeared and in its place is an opening, apparently leading to an inner grotto or cave.

Wonderingly he enters and, as his eyes become accustomed to the dim light, he slowly makes his way toward a beam of light in the rear. As he nears it, he sees a dwarf busily at work. Suddenly the dwarf looks up, and seeing the boy, greets him with "Take what you want, but don't forget the best."

Looking about, the lad sees mounds of nuggets of silver and of gold and piles of precious gems. He stoops, and picks up a few to examine them more closely. Sensing their realness and their value, he drops his flower, and with both hands fills his pockets with the precious wealth.

Pockets full, shirt packed, hands crammed he turns to leave the cave to take his new-found wealth to his home.

Once again he hears the voice, "Take what you want, but don't forget the best!"

Stopping, he begins to sort his gems, discarding the smaller ones, selecting larger more brilliant ones. Then he empties and refills his pockets and his shirt, cramming each little space to the fullest with the finest gems he can find. Finally, he has all he can carry of the best that he can find and slowly makes his way back to the opening.

Just as he reaches it, the voice sounds out once more, "Take what you want, but don't forget the best!"

He stops, looks at his treasure, and, sure that he has selected the best and has taken as much as he can, steps through the opening into the bright sunlight and his familiar land.

Outside, he blinks, while his eyes adjust themselves to the brilliance of the sun. Then he looks at the treasure in his hands. To his dismay, his hands are filled with sticks and stones and leaves and clumps of dirt. The treasures in his pockets are the same.

Angrily he turns to re-enter the cave. But there is no cave. Before him is only the bleak rocky wall of the mountainside. Then he remembers the blue flower which had opened the cave. Then he remembers that in his anxiety to gather the precious things about him he had carelessly dropped it. Then he remembers the words of the dwarf, "Take what you want — but don't forget the best!"

Has Application Today

A legend, you say. Yes, a legend. A fairy tale, if you please. Yet how many times has the wisdom—the true wisdom —of the ages been couched in the simple terms of a homespun tale of folk lore.

Let us change the scene and look for a while at the realism of fact—historical fact. The high points of historical fact that have brought you and me together here today.

A little over 340 years ago a small group of people left Europe, sailed the Atlantic, and landed at Plymouth. They left their homes because they were persecuted. They were "underprivileged." Freedom was being denied them. So they took it upon themselves to brave the perils and the hardships of the deep and of the unknown that they might carve out a new life. A new life that would encompass and nourish what to them was "the best."

Rested on Basic Principles

The new life which they carved out rested on certain basic principles. These principles are the great heritage they, and those who followed them, left as a legacy to you and to me.

What were these principles? Basically they were these two:

(1) Belief, faith and trust in an Almighty God.
(2) Respect for the integrity, the rights, the privileges, and the responsibilities of man as an individual, and of men as a social group.

These are the fundamentals of our Judaeo-Christian religious concept. Actually they are accepted by many religious groups but we will deal with them only as they pertain to us as Americans.

*Mr. Miller is Regional Manager of The National Association of Manufacturers of the United States of America at St. Paul, Minn. He gave this address at the recent convention of the Minnesota Telephone Association.

Their implications are expressed throughout our personal, our social, our economic and our political lives and institutions.

Foundations of Our Lives

They are the foundations of the strength and of the "goodness" of our daily living, our homes, our churches, our schools, our businesses, and our governments. Through them we get our personal freedoms — the rights of the individual to his life, his home, his family, to improve himself, to profit by the fruits of his labor, to work (or not to work) at the job which he likes (or is best suited to). With them come our balancing individual and our group responsibilities — to keep our health, to train our minds and our bodies, to protect and care for our homes and our families, to keep ourselves financially solvent, to pay our bills, to serve and help our fellow man, to participate fully in our civic and governmental responsibilities, and, finally, to respect the laws of God, of nature and of man.

One-hundred fifty-six years passed in a period of formative development, and in 1776 the will of our forefathers found expression in a new government. A government based on our Declaration of Independence, our Constitution, and fortified by the Bill of Rights.

Protection Against Big Government

The first two of these three documents set forth a governmental organization for the development of a great nation. The third provided for the protection of man as an individual, from the crushing weight of a government that could grow too powerful. These documents, too, contained the inherent principles we mentioned before. They clearly indicated that "it is the function of all the people to maintain and support the government," not that "it is the function of the government to support all the people."

History had taught our forefathers well. They knew the sufferings of past millions under powerful governments—even under so-called "benevolent despots." They had experienced the heavy hand of unfair taxes, of a fettered economy, of personal persecution, of favoritism and privilege to the "palace guard," of the abuses of expansion of bureaucratic groups until more and more lived off the work and productive efforts of fewer and fewer.

Lincoln Expressed View

These things, they resolved, must never happen in America. They, too, sought to protect "the best."

Then came a period of rapid growth and expansion, seasoned by conflict, and strengthened by a growing economy and a greater fullness for the lives of men.

Within our nation the dedication to Liberty and the furthering of individual freedom continued. It found a high point of expression when the tall, thin man stood on the hill at Gettysburg and gave expression to his convictions, to his fears, and to his plea for dedication in the speech which he started thus:

"Four score and seven years ago our fathers brought forth on this continent a new nation conceived in liberty and dedicated to the proposition that all men are created equal. . . ."

Here was the epitome of the American philosophy—of the American dream —of the full stature and sacredness of the integrity of individual man.

Century One of Progress

A century has become history since the Civil War—a century of invention, of territorial expansion, of economic growth, of material prosperity. The foundation and development of your great industry has been typical of that century.

It is 90 years since Alexander Graham Bell came to America as an immigrant Scotsman. He brought with him a great mind and an inventive genius. With these as his assets and with America's opportunity and recognition of the worth of the individual his personal progress and stature was assured.

His invention of the telephone in 1876 set the stage for the development of your industry. The continued research, the constant improvement of services, and the sound management of the segments of your enterprise have assured its continuous growth and expansion. Millions of individual Americans as well as the nation as a whole have been the benefactors of your services.

Have Met Challenge

You have served them well in peace and in wars. You have kept progress with the needs, and with the demands of the times. You have met the challenges of multiplying populations, of increasing miles, and of ever more complex uses with modern inventiveness and technology. Improvement has been your watchword and advance planning has enabled you to predict community growth and to meet its requirements with a minimum of inconvenience.

But that century has brought other changes to the complexion of our life. Changes that are affecting our lives and our well being during every minute of our existence.

So many of them have been good that we are prone to accept all change as being beneficial. Progress in medicine has improved our living and extended our lives. Improvements in transportation give us unbelievable mobility. Improved work conditions and shorter hours give us reserve energy and added leisure time. Our tables are laden with foods from every part of the world. Constantly increasing recreational and entertainment facilities make it possible to fill our leisure hours. In short, the past century has brought us more of everything that man has sought through the ages than could possibly have been imagined.

"NOT YET. . . WE'LL LET YOU KNOW WHEN WE'RE READY!"

Yet, I wonder if we are happy people.

When you listen to people speak, are the thoughts they utter most frequently happy and constructive ones, or are they unhappy and complaining? When we think and speak do we deal with joys and progress, or are we frustrated and fearful? When troubles arise do we look at ourselves for possible causes —and for solutions, or do we blame "them" for doing such things to us?

Most of us will readily admit to the negative reactions and most of us would gladly change them. The questions are "Why do we feel that way?" and "What can we do about it?"

Let's take a clear hard look at some of the conditions which so greatly disturb most Americans.

Money Big Worry

The most constant worry is, generally, money. As workers, our pay checks are always too small and our expenses too great. As business owners, our profits after taxes are so small that we can't modernize or expand to meet competition and increase our services. As consumers, the prices we pay have increased so rapidly that the necessities cost like luxuries. As investors, our interest and dividend rates are in general on a declining basis.

Meanwhile our taxes mount. Inflation reduces the purchasing power of our savings. Replacement of worn-out equipment, either in the plant, or in our homes, becomes an added burden. In short, we are like Alice in Wonderland, and have to run like everything and still can't stay where we are.

What can we do about it?

Protect Local Government

To my mind, one answer is simple. We must get back to the fundamental principle that "it is the function of all the people to support the government and not the function of the government to support all the people."

No one will question the wise expenditure of the necessary money for adequate national defense. No one will question the legitimate functions of the national government, but the pressures for constantly increased functioning of the national government in areas better left to the state and local governments can only lead to greater bureaucracies, higher taxes and tighter controls.

We are a generous people. We have never failed to lend a helping hand to those in need. Certainly, our own needy citizens deserve our support—until they can once again become self-supporting.

But there is a fundamental truth in the statement "before you are generous, be just." There is no justice in taxing the man who works hard to improve his status so that a beneficent government can be generous to those who have been taught that it is good to collect "compensation" for doing nothing.

Many people talk disparagingly of our own economic growth in contrast to that of Russia. If Russia is making desirable progress, it could well be because they have long since stopped support of the non-producers at the expense of the producers. The proven non-producers are in Siberia and the producers receive the rewards.

Value of Foreign Aid

To many of us, the old statement "It is better to give than to receive" still makes sense. What really happens to those who constantly depend on others for help? How many of them are really appreciative or happy? Do the billions we pour out in charitable foreign aid gain us friends and respect? You know the answers as well as I.

The man who becomes continuously dependent seldom feels that he is getting all he deserves. His "compensation" seldom matches his wants and needs for long. He tends to lose his purposefulness, his stature and his self-respect. Certainly we cannot hope to build a strong America by constantly increasing the portion of our population that we "support" in this manner.

On the other hand, the millions who continue to uphold their dignity, and their self-respect despite temporary set backs, or illness, or incapacitation deserve our utmost sympathy and help. But I feel, as do millions of others, that these situations can most effectively be handled at the local level.

There are two points to be remembered.

Government Responsibility to Us

The first is that government officials are our representatives. Our votes put them in office. They are responsible to us, not we to them. We cannot say that we have fulfilled our civic responsibilities by merely having voted. We must keep ourselves informed on all matters of public concern, and we must keep them informed on how we want them to represent us. They will come back to ask for our support at the next election. We can't criticize them if we haven't told them what we want them to do. They can't expect our support if they have acted contrary to our expressed desires.

The second point is equally important. It is *our* money they are spending. If we are housewives trying to balance the budget, or businessmen trying to make our businesses pay, we watch every dollar to see that it reaches as far as possible. Yet, as citizens, we all too frequently give our representatives a free hand, with no instructions from us, in spending millions at the local and state levels and billions at the national level.

Yet we must pay every dollar they spend. It is taken off the top of our paychecks by our taxes, and the tax department doesn't issue any credit cards.

Spending Gets Votes

Sure the politicians want more programs that will make people dependent on the government. It gets votes.

Sure the ever increasing number of government employees want to see all government expand. It guarantees them work and a good retirement.

But what do such programs contribute to the productive economy? You can't create wealth—or sound well-being —by switching dollars from one man's pockets to another man's pockets, particularly when the government "handling charge" is taken out. Let's wake up. There just isn't any such thing as a "free" lunch. Somebody always has to pay!

More and more it becomes evident that business and industry are suffering greatly under the pressure of higher and higher taxes. More and more you and I, as citizens, are finding it harder to meet the demands of high taxes, inflated prices and the constantly more staggering costs of larger and larger government operations. These are the things that cause us worry.

Are Taxes Serving the "Best"?

If the result of the government's increasing generosity with our money likewise results in the recipients becoming more dependent, more dissatisfied and less productively purposeful, can we say that our taxes are serving the nation's "best"?

If we agree that America's "best" is the self-reliant man who uses his capabilities and his resources to support himself and his family, and who serves his fellow man in his vocation and his avocation then we must first of all accept this as a standard for our own living. Nothing less can be our personal and individual best!

And we must demand that our representatives who spend our money in taxes adopt the same criterion for every dollar of our money that they collect and spend. The internal complexities and problems of our times are too great for anything less. The challenges from abroad are too critical for us to waste a single dollar of our money, or a single hour of our energy, on anything that accomplishes less.

"But," you say, "what can I do? I

(Continued on page 50)

Plowing a Straight Furrow

Philosophy taught the author as a boy on the farm has deeper meaning today in teaching people to strive to meet the highest standards of performance.

By WILLIAM V. KAHLER*

THE COMPLIMENT you pay me is great. An engineer could ask for no more than to be honored by his fellow engineers.

I'm sure the things said about me tonight were said not because of what I've done, but because of the philosophy expressed in my efforts.

History tells us about men who devoted half a lifetime to developing a philosophy, and who spent the other half writing about it. My philosophy was not formed on so grand a scale, nor is it so profound as to require much time to express it. No book has been written about it. Frankly, a book wouldn't be necessary; one sentence will do.

It was spoken to me by my father a long time ago—not once but many times on our farm back in Missouri. I recall one occasion his only audience other than me was Frank and Jerry, a pair of tough old mules. What my dad said was simply this: "Plow a straight furrow." The rest of it was up to me—and the mules.

Guide for Performance

Plow a straight furrow—is that philosophy? My father didn't intend it as such. He was merely telling me how he wanted the plowing done. But I think it was philosophy. And I'll tell you why I think so. When I was a boy, no farmer in Missouri had ever heard of contour plowing. Whether your farm was hilly or not, you plowed back and forth, back and forth, hour after hour, always in a straight line—as straight, that is, as you and the walking plow and the mules could make it—until the job was done.

Your neighbors measured your skill by the straightness of your furrows. And you came to learn, as you trudged along smelling the newly turned earth, that a straight line was indeed the shortest distance between two points. To do the job right you had to watch the mules, watch the plow and keep your eyes on the untilled land ahead. It wasn't easy. Perfection never is. One never quite attains it no matter how hard he tries.

That was the challenge my dad gave me when he told me to plow a straight furrow. The message that got through to me then was: Try to be a respected farmer in the neighborhood. But as time passed it developed into a deeper meaning: Strive to meet the highest possible standards of performance.

Leave Things Undone

On the farm, there are times when a boy is less interested in meeting high standards than he is in some of the more pleasant alternatives—such as going fishing. I know! I sneaked off now and then to fish for bullheads in Elm Branch.

The desire to find alternatives to duty still exists on the farm, in the office, everywhere. I know this firsthand, too, because I still like to go fishing. Lots of people do. But we can't all grab a pole and a can of worms and head for the nearest creek whenever the spirit moves us. The trouble is, people try. I don't mean they go fishing all the time, rather that they leave some things undone that sorely need to be done.

Take an average citizen. What happens when his congressman wants to pass a law he doesn't think is good for the country? When he's asked to help on the school board? Or when there's voting to be done? Some people are inclined to say, "Somebody ought to do something about that." I haven't got time." "Somebody else is better equipped to do it." . . . No straight furrows plowed there.

All Responsible for Education

Or take a look at education. Some have made our educators their whipping boys. Others point their finger at the students of today. Actually, we all—teachers, pupils and parents—share the blame for the flaws in our educational process. And flaws there are.

A business associate told me about one just the other day. He said his son, who's a freshman in one of the best high schools in this area, had written a report for a social studies course. The report contained a couple of misspelled words.

My friend pointed out the spelling errors to his son and suggested that the boy correct them.

"Aw shucks," the boy said, "my teacher only grades on content. She doesn't care about a misspelled word now and then."

And sure enough, a few days later, the lad brought his paper home to proudly display the high grade he'd received. The spelling errors had gone unmarked — if not unnoticed — by the teacher.

Disturbing Trend

That sort of thing may not be the rule, but if it is, it's no wonder that so many of our high school graduates are lacking in mastery of their mother tongue. In fact, 70 per cent of our col-

*Mr. Kahler is President of Illinois Bell Telephone Co. He gave this address upon receiving The Washington Award, one of the nation's outstanding honors for engineers, at a dinner recently held in Chicago.

leges and universities feel obligated to offer remedial work in the fundamentals of English.

The fact that so many people think nothing of laying down the plow and going fishing, so to speak, disturbs me. I hope it disturbs you, too.

Is it softness born of plenty? Is honest effort going out of style? Has our moral fiber weakened? Or is all this the outgrowth of a lost sense of personal discipline?

It's no easy task to hold firm to a desire for excellence. It helps to occasionally take stock of one's own imperfections. Now and then one needs to ask himself questions like these: How good a plowman am I? That is, what talents do I have to offer?

What fields need plowing? Or, what jobs need doing?

How shall I plow? That is, how can the job best be done?

Engineers' Responsibility

All this was eloquently expressed a century ago by the poet Richard Horne in these lines:

> Ye rigid Plowmen! Bear in mind
> Your labor is for future hours.
> Advance! spare not! nor look behind!
> Plow deep and straight with all
> your powers!

The man who founded The Washington Award 45 years ago, the late John W. Alvord, hoped that one of its purposes would be to encourage among engineers what he called "a broader understanding of their opportunities for public usefulness."

An engineer's work, in its broadest aspects, permeates the life of the community. An engineer cannot lose sight of human values, for he has a responsibility to help solve the social problems he helps create through technological advance. The engineer who says his job is done when a road is built or a building is topped out is not a realist.

A realist knows that many new problems of society arise from the successful solution of old ones. For example:

> We have traffic and parking problems because, with attainment of our high standard of living, so many people now can own automobiles.
> We are faced with critical problems of urban renewal because our society has become increasingly mobile, both economically and geographically.
> Our racial problems are getting headlines precisely because we are making a little progress in lowering racial barriers.

Growth Causes Growth

Our most pressing social problems are caused by growth, not by decay, but that doesn't make them any easier to solve. Responsibility for dealing with them rests largely with the leadership groups of society, for these groups are the ones most able to act effectively in working toward solutions.

William V. Kahler (right), president of Illinois Bell Telephone Co., being presented The Washington Award by Raymond D. Maxson, president of the Western Society of Engineers. The award is conferred upon an engineer for "accomplishments which pre-eminently promote the happiness, comfort and well-being of humanity." Former President Hoover was the first recipient in 1919. Mr. Kahler was chosen by the Washington Award Commission representing the Western Society of Engineers, American Society of Civil Engineers, American Institute of Electrical Engineers, American Institute of Mining, Metallurgical and Petroleum Engineers and American Society of Mechanical Engineers.

Engineers constitute a formidable leadership group, and their responsibility is not confined solely to using professional skill to earn a living. Two chief avenues exist for them to exercise professional leadership aside from this. They are philanthropic giving and personal participation — in plain English—giving money and giving time. A person's obligation to the community cannot be discharged merely by writing a check.

Among the engineer's greatest assets are his technical know-how and his ability to innovate. These are needed by many great causes, but some of our most worthwhile ones can't afford the price. That is why the engineer who gives money without giving himself, may be short-changing his community. He may be short-changing himself as well, because often his talents could do a heap more good than a few of his dollars ever would.

Lack of Engineering Students

As you know, for several years engineering schools have been reporting that they don't get enough students to meet the needs of the future. This was true before Sputnik and it's still true today, despite the over-all increase in college enrollments. Those who thought that Sputnik would spur American youth into sprinting for the nearest engineering college found, instead, that many of our brightest youngsters were turning to what they felt were more glamorous fields of study.

Engineering—at least the kind you and I studied—seemed too prosaic, or too dull. Their interest lay perhaps in learning more about the campus Venus than about the Venus of the sky.

More sobering, and more frightening, is the concern of some students over the rigors and demands of engineering education. They think it's too tough.

You and I know better. Look how many of us got through.

Seriously, there's nothing wrong with the engineering curriculum being a little tough. It makes for greater pride in mastering it. It can even be a selling point to the best-quality prospects in our high schools. And selling our profession is something we could do a lot more of.

Need for Recruiting

John Rettaliata, president of Illinois Institute of Technology, recently said that it's becoming increasingly important that students yet undecided as to what career they wish to follow, be made aware of the opportunities in engineering. Perhaps his language was a little too polite, but he was addressing Illinois Tech trustees and maybe he thought it best to not hurt our feelings.

I'll take the liberty of putting it a little more bluntly: As engineer's let's make it our job to seek out bright young people and inform them of the merits of our profession. Let's be sure they see the glamor of engineering and feel, as we do, the tingling satisfactions that come from technological creation.

There is glamor in engineering, and we need to dramatize it. It's the engineer who applies physical laws to the needs of society. Without engineers, transistors would still be an abstract theory in the laboratories, and thus there'd be no multi-billion dollar electronics industry with its vestpocket radios, featherweight hearing aids, and myriad other tiny wonders of our modern age.

Without engineers there'd be no Prudential Building overlooking Chicago's lakefront, no bridge across the Straits of Mackinac, no satellites streaking through space, no atomic submarines to protect our sovereignty.

Career Days Important

But does the talented young person of today look upon these as marvels of engineering? Does he wish he could design such wondrous things? Is he, therefore, stimulated to seek a career in our profession? We can be sure he is if we inspire him during his formative years. Career Days offer one such opportunity. Almost every community's high school holds a Career Day and I expect some of you have participated in them. But many more volunteers would be welcome, and could do much good.

Some of the high schools are looking for experts like you who will meet with students occasionally after school, or on Saturday's, to give them guidance in science projects that can lead directly to interest in science and engineering.

Other schools need volunteers to help out on science fairs and serve as judges. Here again are chances for contact with youngsters whose natural bent and enthusiasm can be channeled into our profession.

The recruiting of young people for engineering is our job as well as that of the colleges. And it's a rewarding task. I've found that meeting young people gives me much more inspiration than I can possibly give them.

Youth is indeed a fertile field in which to plow a straight furrow.

SAVE Vital Activity

And here's a way to cultivate another field. You've already heard something about SAVE (Service Activities of Volunteer Engineers). It's an organization of Illinois Bell Telephone Co. engineers who allocate some of their leisure time to developing ingenious devices for research in the medical and biological sciences.

Medical science is exploring so many new frontiers that the researchers are getting ahead of their tools. There is great need for new instrumentalities to facilitate their work and for the engineering know-how it takes to bring them into being. There are, of course, companies which develop and manufacture medical research equipment. But the development cost — in money, time and manpower—has led to a research equipment gap to use a term that's fashionable these days. SAVE helps fill that gap.

SAVE was conceived four years ago to help researchers at the University of Chicago Medical School. They've welcomed this aid. So far, 47 engineers have, on their own time, worked on 32 projects for medical groups, and the idea has taken root in eight other Bell System companies.

Inventions to Charity

Among devices coming from the engineers' home workshops are an electronic stethoscope for use during surgery, a pushbutton device to help train young doctors and technicians to recognize and classify cancer cells, an instrument to quickly measure the roundness of a bone being replaced in surgery, and a cardiotachometer.

This latter instrument—a pulse counter — enables doctors to do something they couldn't do before—record the number of a person's heart beats during a normal day's activities. Electrodes are attached to a person's chest with surgical glue. Wires lead to a transistorized counter no larger than a pocket lighter. Heart beats are recorded by an ingeniously modified wristwatch assembly.

Current SAVE projects include complex instrumentation for open-heart surgery. Incidentally, any inventions these engineers come up with are assigned to SAVE for charitable purposes.

Meeting Highest Standards

I tell you about SAVE not to beat the drums for telephone engineers, but to give you a concrete example of a successful method of applying engineering skill to important problems that no one else had gotten around to solve. These engineers are meeting the highest standards of their society by applying their special talents unselfishly for the public good. They are plowing a straight furrow in its greatest philosophical sense.

And, now, I'd like you to consider the opportunities for plowing in quite another field, one I venture we'll be hearing more about.

The underdeveloped nations, we're told, need more technological guidance than they're getting. The theory is, if we don't give it, the Communists will. Whether we do it by sending people abroad, or by inviting foreign technicians to study over here, we should see that our assistance programs are practical. We can't afford them if they aren't.

You're familiar with the needs of the world's less fortunate nations. Just to keep this subject on a bi-partisan basis, I'll remind you that these needs have been stressed many times by both Mr. Eisenhower and Mr. Kennedy.

Can Help Peace Corps

In his State of the Union message, President Kennedy observed that one of our nation's most valuable assets is its reservoir of dedicated men and women, in every age group, who desire to contribute their technical skills and part of their lives to the struggle for world order. He said these people, and he specifically included engineers, can be mobilized in a national peace corps, which he described as "enlisting the services of all those with the desire and capacity to help foreign lands meet their urgent needs for trained personnel."

The underdeveloped nations, some of them newly born, are ill equipped to face life in this era of ideological combat, exploding population, and unequal distribution of technology. Dollar aid alone won't solve their problems. The President has established the Peace Corps on a temporary basis and has asked Congress for legislation to make it permanent.

Calls of Judgment

This calls for level-headed thinking by mature, down-to-earth people — and we, as engineers, can pridefully say that includes us—to insure that technical assistance of any nature will be adminis-

(Continued on page 53)

The Plant Man's NOTEBOOK

By RAY BLAIN, Technical Editorial Director

IN THE *Southwestern Telephone News* we are informed that more than two dozen countries have pictured the telephone, or a related subject, on their postal stationery. One might wonder why this is done. In fact, it appears that the less the people have to talk about, the more likely the country is to publicize its telephone service.

There are exceptions, of course. Sweden (35 telephones per 100 population), Canada (31 per 100), Switzerland (30 per 100), and tiny Iceland (21 per 100), can be justly proud of their telephone development.

The British Commonwealth of Nations, which comprises 80 stamp-issuing units, has given practically no recognition to the telephone. This is curious. A British country, Australia (21 telephones per 100 population), issued the first "telephone stamps" in 1936. These marked the opening of a submarine telephone cable between the mainland and the island of Tasmania.

On the other hand, the Iron Curtain countries have been more than generous with their recognition of the telephone. Bulgaria (0.77 telephones per 100 population), Czechoslovakia (6.88 per 100), Hungary (4.62 per 100), Romania (0.77 per 100), Communist East Germany (7.16 per 100), and Russia (1.91 per 100) have issued a total of 13 such labels. Most of them have little, if any, artistic merit and they give a revealing glimpse of outmoded equipment and practices. Bulgaria, for instance, shows a pole line being strung by construction workers standing on horseback.

For creative imagination, it's hard to top the stamps of Israel. The two stamps celebrating Israel's advancement in telephone and teletypewriter service in 1959 illustrate this. Israel still has only 4.9 telephones for every 100 inhabitants, but this represents a 233 per cent increase in the past 10 years.

Alexander Graham Bell has been honored by the two countries which claim him. The United States included his picture in a "Famous Americans" series of 1940; and Canada portrayed him in 1947.

The Bell System, and especially the Bell Laboratories, can take pride in another stamp issued only last December —the one commemorating Echo I.

Collectors who are starting to collect "telephone stamps" today are getting in on the ground floor. The telephone will be 100 years old in 14 more years. If past events in philately are any indication, the 42 stamps issued so far will swell to several hundred in 1975—and patient stamp collectors will buy them all.

•

We are indebted to our friend, Dermot K. Foley, for information on a new method of mounting B-type cross-connecting terminals at ground level, in the manner indicated in the accompanying photo.

This method is now being used by the Pacific Telephone & Telegraph Co. on the West Coast with considerable success. The method saves the cost of pole balconies and seats that must be used when the terminals are mounted higher on the pole. Safety is another important factor, as the danger is reduced when the terminal can be worked on from the ground and pole climbing is not required.

The terminal shown in the picture requires that a longer stub be spliced to the 10-foot factory-equipped stub to make the connection to the aerial cable. In the future, 25-foot stubs will be standard on the B-type terminals used by the Pacific company. Stubs can also be furnished in any desired length on special order.

When this terminal is mounted at ground level, it is locked by the use of a standard Bell System padlock. Keys are carried by all plant men and supervisors.

•

It is a pleasure to note that our long-time friend, Arthur Bell, who retired from the Signal Corps several years ago, and who is now with the General Telephone Co. of Upstate New York, was recently promoted from equipment engineer to general construction supervisor.

"Cross Talk"

Perhaps the most noticeable thing about a backward country is that children are still obeying their parents.

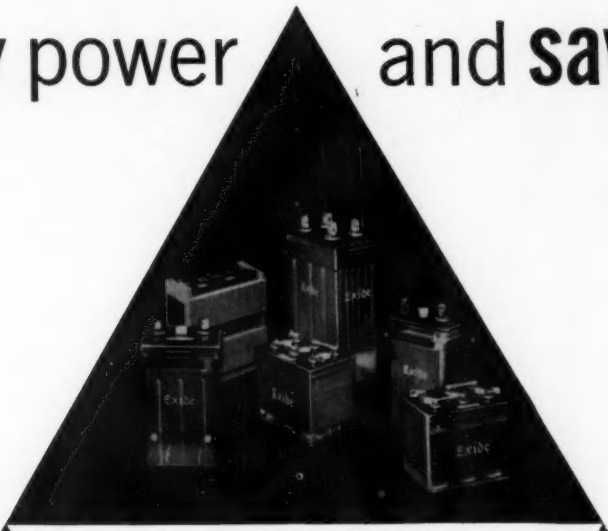
•

It is claimed that a book is a success when people who haven't read it pretend they have.

•

It is claimed that the difference between genius and stupidity is that genius has its limits.

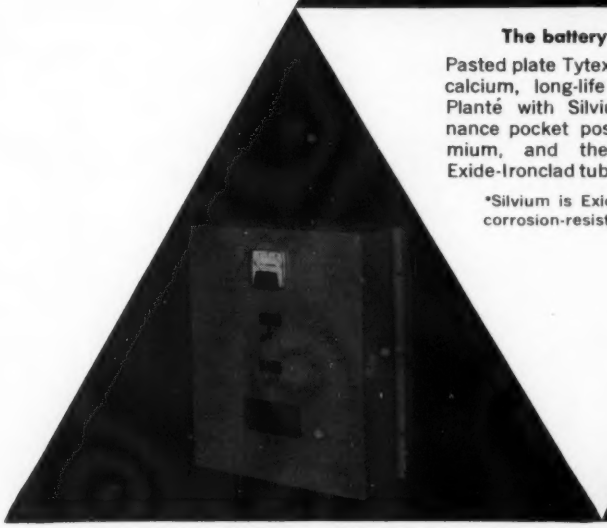
Place **one order** for complete battery power and **save money**



The battery you need

Pasted plate Tytex with Silvium* or calcium, long-life Exide-Manchex Planté with Silvium, low-maintenance pocket positive nickel cadmium, and the new 20-year Exide-Ironclad tubular with Silvium.

*Silvium is Exide's patented corrosion-resistant grid alloy.



The rectifier you need

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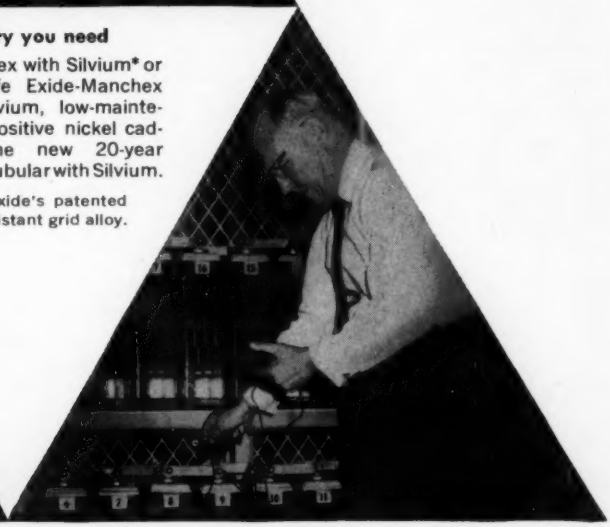

The service you need

Coast to coast, factory-trained service specialists.

Think of your battery power as a package. It has three parts: battery, rectifier and service. And you need all three. So it's smart to buy them as one package and save three ways.

1. You save by insuring that you get the particular type and size battery for your own requirements. Exide's recommendation is based on engineering calculations.

2. You save by getting the rectifier with the required capacity for your needs and with the latest design for maximum efficiency of operation.

3. You save by having factory-trained, factory-supervised service technicians constantly available and on whom you can always depend.

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Kentucky Association Meet Stresses Transmission

By Dan S. Fargo

THE KENTUCKY Telephone Association on Mar. 7 held its annual convention in Lexington with 250 regular and 66 associate members registered, a total of 316. President D. B. Corman of Glasgow, presided.

The following panel of speakers on transmission was a major feature of the convention:

Ray Soard Jr. of General Telephone Co. of Kentucky, speaking on "Transmission Philosophy."

Billy Jo Albany of South Central Rural Telephone Cooperative, Inc., talking on "How to Provide Good Transmission."

E. D. Clark of Cincinnati & Suburban Bell Telephone Co. Topic: "How Good Is Our Transmission?"

Stuart H. Gates of Southern Bell Telephone & Telegraph Co., with a talk and demonstration titled: "How're We Doin' on Transmission?"

Mr. Soard reviewed the fact that after switching devices have made a connection, subscribers must be able to talk to each other, and that the quality of transmission of their voices depends on:

(1) *Volume*—degree of loudness.

(2) *Naturalness.* This requires that the frequency bandwidth be wide enough and have certain loss figures throughout the pass band.

(3) *Noise.* The noise on the circuit must be low enough that the subscriber transmission is not masked by the noise.

(4) *Crosstalk.* We must hold our crosstalk to a value which will result in a high degree of secrecy on all calls. Crosstalk is generally controlled in the cable manufacture and by using transpositions on open wire.

(5) *Miscellaneous Impairments.* Some other factors which would affect transmission are phase distortion, echo, and singing. Generally, on intra-exchange and short-haul toll calls, these play a minor part in our business.

Mr. Soard stated that on calls involving trunks between exchanges, the present objective is a 4 db trunk, the future objective being almost zero db.

Mr. Soard concluded: "It must be borne in mind that as we improve transmission, our subscribers use the improved transmission to give them more comfort. Since our subscribers, in the final analysis, are our bosses, we should try to give them what they want."

Mr. Albany, speaking on intra-office transmission, showed what he called fairly simple charts which enable the user to determine optimum gauge combinations for any length loop and any office. He said this method is known as "Resistance Design"; not only does it provide the cheapest subscriber plant, but, with a few simple rules, it provides an excellent grade of subscriber transmission.

Mr. Albany said inter-office transmission calls, which may be expected to cause most transmission trouble, are generally of two types—direct trunks and tandem trunks. The present objective for these trunks, he said, should be:

Direct trunks should have an average of 4 db and a maximum of 6 db. This is best illustrated by a particular statistical distribution curve with a 50 per cent point at 4 db and a 3 standard deviation of 2 db.

Tandem trunks should have an average of 2 db with a maximum of 3 db. The 3 standard deviation should be 1 db.

Mr. Albany stated that recent improvements in toll transmission layouts have been achieved by these means:

(1) All the toll trunks between offices rated as "toll center" or higher, now or soon will operate at VNL. VNL simply means that all the loss that can be squeezed out of the circuit, without singing or objectionable echoes, is done so.

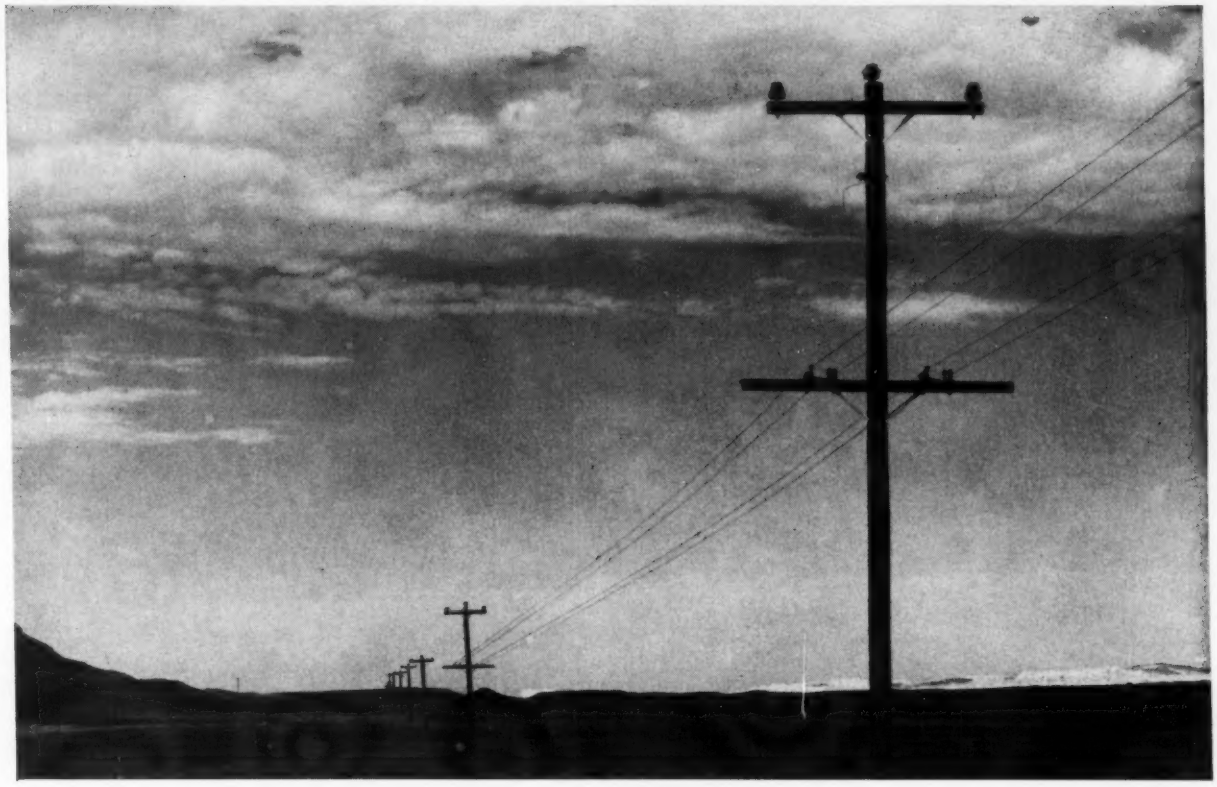
(2) The "end link" or the toll trunk between the "toll center" and the end or final office is operated at VNL + 2 db. The added 2 db at the ends of all these calls is to insure that singing or echoes will not be objectionable. Besides it may save money in their design.

Mr. Clark pointed out that until recently, the standard method of grading transmission furnished subscribers was based upon a repetition rate. Trained observers would monitor calls and note the repetitions per unit of time during a call. The more repetitions the poorer the grade of the call.

However, he said, in Kentucky as in other states where transmission has been constantly improved, there are so few repetitions that they are no longer a good criterion for grading the call. A new method has been developed for rating our transmission and it is called the Transmission Volume Rating Plan. The standard for rating calls by this

(Continued on page 36)

Kentucky Telephone Association newly elected officers are (l. to r.): A. L. Daughters of Covington, president; Gordon Saunders of Lexington, vice president; L. T. Utz of Florence, vice president, and Ralph F. Kessinger of Lexington, secretary-treasurer.



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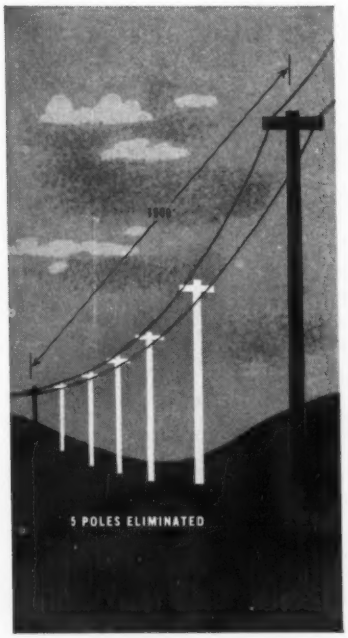


NS SPECIAL 080-25 COPPERPLY also makes possible long-span installation up to 1900 ft. on communications installations, using insulated wire and special construction design.

Now you can string Special 080-25 COPPERPLY jointly with power lines at about half the cost of previous conductors suitable for such installations.

When you substitute Special 080-25 for iron wire or for .102-30 EHS copper-coated wire on joint construction, you get maximum service flexibility at less cost. Extra strength of Special 080-25 means it can be strung to 540 foot spans in heavy loading districts, although practical application to avoid mid-span hits would normally limit span lengths to approximately 430 feet when used bare.

ADDED ADVANTAGES—with Special 080-25 COPPERPLY you get these added advantages:

- **Carrier Capability**—four mils of concentric copper coating assures excellent carrier transmission
- **Economy**—installed cost per mile is approximately equal to galvanized wire, grade 135
- **High Strength/Low Weight**—with a breaking strength of 1325 lbs., weight of 92.4 lbs. per mile, Special 080-25 provides a greater strength-to-weight ratio

For the complete story on Special 080-25 COPPERPLY and other standard sizes, contact National-Standard Company, Niles, Michigan C-61-3

NS NATIONAL STANDARD COMPANY

NATIONAL-STANDARD COMPANY
Niles, Michigan

TYPE 40A and 80A PABX

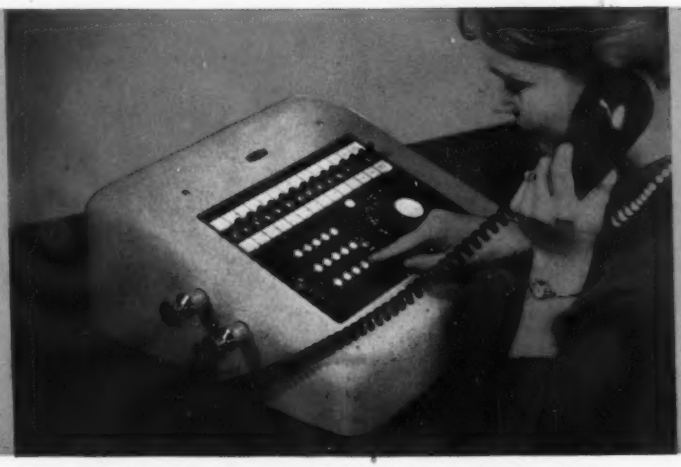
AE gives you quick delivery on Type 40A and 80A PABX. These boards are designed to serve your business customers who need fast, flexible communications. For complete details on these systems, see your AE representative. He can also furnish valuable sales aids to help you promote PABX in your area. To contact him, just write Automatic Electric Sales Corporation, Northlake, Illinois.

TYPE 40A PABX

A complete communications system for up to 40 lines. Handles six local inside calls and 10 outside city calls—using standard phones. Calls are transferred without help from the attendant. Compact attendant cabinet (shown here). 13 optional services including Busy Lamp Field, Code Call, Executive Right-of-Way and Direct Line Unit.

TYPE 80A PABX

A new system which provides up to 80 lines. Handles 12 local inside calls and 20 outside city calls—using standard phones. Calls are transferred without help from the attendant. Modern keyset turret (shown here) keeps incoming traffic moving swiftly. 13 optional services including Busy Lamp Field, Code Call and Direct Line Unit.



These PABX systems are manufactured by Leich Electric Co.

AUTOMATIC ELECTRIC

Subsidiary of

GENERAL TELEPHONE & ELECTRONICS

GENERAL SYSTEM

method is the volume received at the subscriber's telephone.

Mr. Clark covered the Transmission Volume Rating Plan briefly and then said anyone interested could obtain the step-by-step procedure from the transmission committee of the Kentucky Telephone Association. He said the method has been used to point out such items as wrong sets; inadequate or missing local loop loading, and electrically long trunks.

In summary, Mr. Clark said transmission may be improved thus:

(1) The local plant must be designed and built properly. The right gauges, sets, and loading must be used.

(2) The new trunks should be designed and installed to meet the objectives.

(3) Existing trunks should be measured. All trunks not meeting the objectives should be redesigned and scheduled for improvement.

(4) The use of some plan like the Volume Rating Plan should be used to discover faults in the existing plant. Any such fault should be scheduled for correction.

Mr. Gates, in putting on the "How're We Doin' on Transmission?" demonstration, stated the purpose was to emphasize the importance of both transmission design and transmission maintenance. The main part of the display is an electronic computer which can distinguish various levels of 1,000-cycle tones. He explained:

"These 1,000-cycle tones are in various towns and cities which are available to the Direct Distance Dialing Network. We can dial them up from this console. In fact, we have several hundred on a repertory dialer and can dial any others up with a regular telephone.

"When we have been connected to the distant 1,000-cycle tone, the 'brain' (computer), goes to work and determines the loss to Lexington."

Mr. Gates told how the various loss figures, when sufficient examples had been obtained, would begin to fall in a "normal distribution curve." He said that certain interesting points such as average, bias and deviation, would then be obtainable.

"Of course, our objective is that after the circuits have been engineered to a certain loss value, they be installed and maintained at that value," he said.

"Our transmission problem is further complicated because the routing may vary over possibly 30 or so combinations. Furthermore, these other circuits will probably have variations in their electrical length."

Mr. Gates pointed out that the call curve showed that the average call was about 9 db, which was termed about 4 or 5 db too much. He said that when such is the case good maintenance becomes necessary.

Group gathered near the "How're We Doin' on Transmission?" demonstration, feature of the Kentucky Telephone Association convention. Southern Bell's Stuart H. Gates, demonstration spokesman, is at far right.

Clifford C. Pearce of Riceville, Ia., president of the United States Independent Telephone Association, set forth "Our Role in the Sixties."

Commenting upon the introduction and development of space communications, Mr. Pearce said he realized that the small telephone companies are not going into the satellite business for a long time to come. However, he warned that they had better start giving consideration to the effects satellite communications and other rapidly occurring inventions are going to have on their future operations. Above all, he said, the small companies had better start thinking seriously about what they are going to do to provide adequate circuits and facilities to accommodate the numerous types of communications which they will be called upon to furnish. He said further:

"Although it is plain that we face some terrifying challenges during the next 10 years, we cannot help but be optimistic about the future of the telephone industry. The challenges will bring with them many openings for jobs, many opportunities for investment and for profit. And there will be opportunities for service such as we have never known before.

"Most students of our business believe that the brightest era and our largest opportunities lie ahead. There seems to be no letup in demand for telephone service. The demand for communications service is just beginning."

Mr. Pearce also emphasized that the telephone industry faces increased competition from other organizations selling communications. These include the Post Office, with its facsimile mail experiment, and Western Union, with its recent phenomenal growth in specialized communications. Another avenue for considerable competition, he said, is the recent ruling of the FCC making microwave licenses for private systems available to businesses.

Mr. Pearce stated: "We can and will meet the competition if we work together. Some drastic changes may be necessary. We may see very soon some experimental tests in certain areas encouraging the use of long-distance telephone service during the low-usage hours which will be a radical change from present timing and ticketing.

"Is there a real reason why a long-distance call should be based on an initial three-minute charge from 10 p.m. until 5 a.m., when 95 per cent of the telephone equipment in this country is not in use? Why not give the customer 10, 20 or 30 minutes, or maybe unlimited time for a flat charge during these hours?"

Mr. Pearce said that with radical changes in timing and charges during these hours, the peak load conditions as we know them today could practically disappear. And, he observed, perhaps some new business could be obtained without one dollar of added investment. He went on:

"In addition, we would be meeting some of the growing competition head on in a way that would be hard to beat.

"The telephone industry is not going to sit idly by. We have the tools and the knowhow and the experience in our industry."

E. Bruce Kennedy, state commissioner of economic development, reminded his listeners that communication facilities are of vital importance to industry

(Continued on page 53)

LOW-COST DEPENDABILITY

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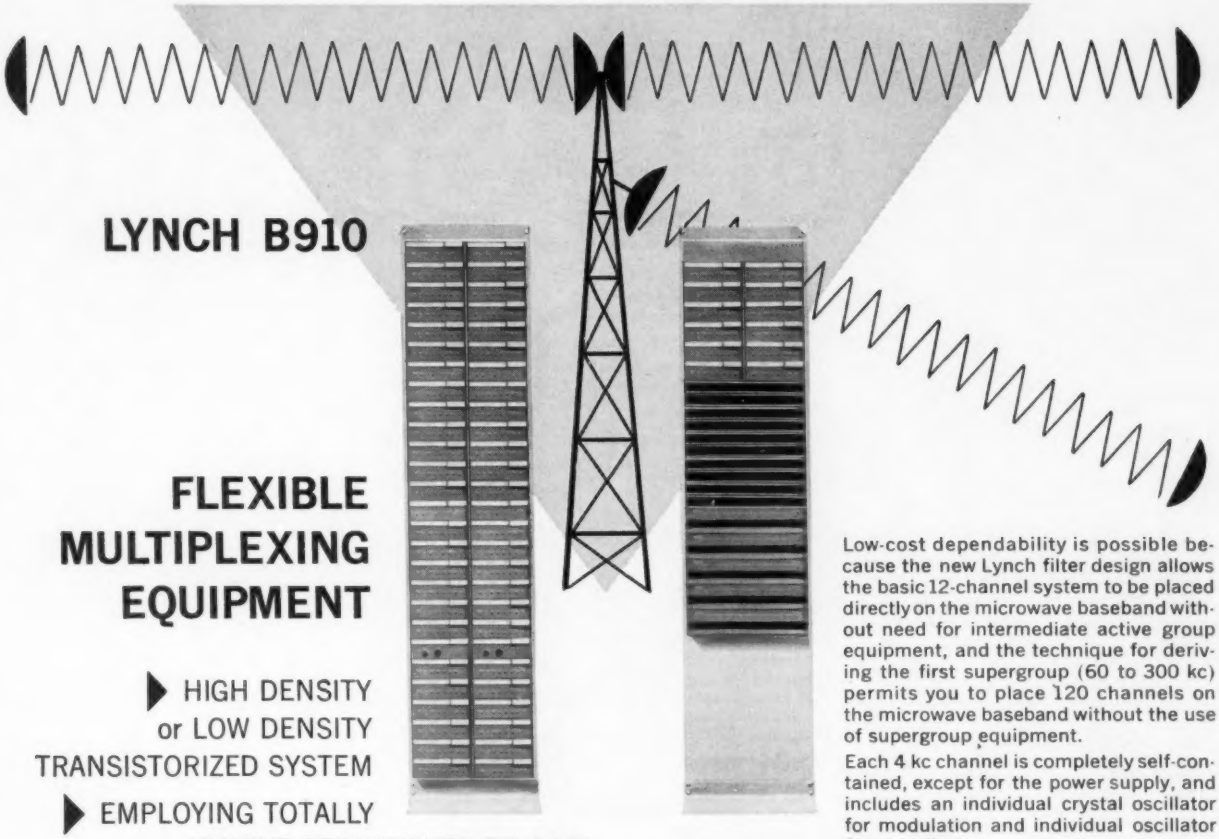

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FLEXIBLE MULTIPLEXING EQUIPMENT

▶ HIGH DENSITY
or LOW DENSITY
TRANSISTORIZED SYSTEM

▶ EMPLOYING TOTALLY
UNIQUE TECHNIQUES TO GIVE
YOU THESE ADVANTAGES:

Economical initial purchase of 1 to 12 channels, easy expansion to 600 channels

Lower initial, expansion and maintenance costs

Greater flexibility, with elimination of the need for common equipment

Filter options for easy drop and reinsert configurations

New level of reliability... up to 12 channels without common equipment and up to 120 channels with no equipment common to more than 12, except for power supply

Low-cost dependability is possible because the new Lynch filter design allows the basic 12-channel system to be placed directly on the microwave baseband without need for intermediate active group equipment, and the technique for deriving the first supergroup (60 to 300 kc) permits you to place 120 channels on the microwave baseband without the use of supergroup equipment.

Each 4 kc channel is completely self-contained, except for the power supply, and includes an individual crystal oscillator for modulation and individual oscillator for signaling.

Use of single-sideband suppressed carrier transmission permits maximum utilization of the microwave baseband with minimum loading and substantial noise reduction. This fully transistorized system for microwave multiplexing is also expandable to cable and wire-line operation on a carrier frequency basis.

Two modulation plans available: Plan "A" conforms to CCITT recommendations; Plan "B" facilitates economical and simple "breakout" of groups of 12 or less voice channels at any repeater or junction station by low-cost conventional filtering methods. The system is compatible with a wide range of existing carriers and offers economy, flexibility and unprecedented reliability to small and large users alike.

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USITA-Bell OK $10 Million Interim Toll Settlement Increase

FOLLOWING a number of meetings of the Settlements Committee of the United States Independent Telephone Association with Bell System representatives, the USITA has announced an agreement has been reached that will provide an interim annual increase of about 10 million dollars in message toll settlements to Independent telephone companies. The settlements are based on 1960 traffic volumes, assuming all companies were utilizing average schedules.

Since a number of Independent companies are settling on other bases it is estimated that the adjustment in settlements will provide an increase of approximately 7 million dollars over-all for companies using 1959 average cents-per-message schedules.

A Joint Report by the USITA Settlements Committee and Bell System representatives, setting forth details of the agreement between the two segments of the industry, will be issued to Independent and Bell companies.

The interim increase in message toll settlements to Independents will be applicable for a period of one year during which a nationwide study of the cost of Schedules "A", "B", line haul and automatic ticketing will be undertaken jointly by the USITA and the Bell System. The average schedules will be adjusted to the results of the study upon its completion.

Line haul settlement arrangements have been changed from a "per message" to a "per circuit" basis to simplify administration of the schedules in recognition of Wide Area Telephone Service (WATS) and other toll traffic using the message toll network. This revision in the line haul schedules could produce approximately 2 million dollars in added line haul settlements as additional interexchange facilities are provided by Independent companies to meet expanded service requirements.

The new settlement arrangements are effective with bills beginning Apr. 1, 1961, provided that an Independent company accepts them within 30 days after offered by its connecting associated Bell company. An illustrative traffic agreement embodying these changes will be distributed to Independent companies in the near future by USITA.

The revised settlements schedules include an element to recognize participation of Independent telephone companies in terminating inward WATS traffic. Settlements for WATS traffic originated by customers in Independent territories may be based on the interim settlement plan which is a part of the Joint Report. The application of the increased interim Schedule "A" settlements assumes that Independent companies will participate in the provision of WATS. In future studies to determine the level of settlements, WATS minutes of use will be treated in the same manner as message toll minutes of use.

In announcing the new settlement arrangements, the USITA recommends that Independent companies join with the Bell System in the provision of WATS, both interstate and intrastate.

It is reported that associated Bell companies will contact Independent companies, offering settlement arrangements consistent with those outlined in the USITA-Bell Joint Report and informing them of the effect of the new settlement arrangements, as well as invite their agreement to participate in WATS.

Mervin H. Alexander, USITA Settlements Coordinator, said "the Settlements Committee has worked long and diligently to make this increase in settlements available to Independent companies. It deserves the appreciation not only of the United States Independent Telephone Association but of all Independent companies."

W. K. Koch Elected President Of Telephone Pioneers

Walter K. Koch of Denver, president of the Mountain States Telephone & Telegraph Co., has been elected president of the Telephone Pioneers of America.

Mr. Koch will hold office during the 1961-62 year, which begins on July 1. Erskine N. White, president of the New England Telephone & Telegraph Co., will serve as senior vice president.

Elected vice presidents of the Association for two-year terms are Mrs. Hellen W. McKenney, Los Angeles, Cal., Section 2; Robert B. Nelson, Waterloo, Ia., Section 3; Gordon H. Ruggaber, Milwaukee, Wis., Section 5; George B. King, Columbus, O., Section 6; James J. Roche, Harrisburg, Pa., Section 9, and LeRoy G. Baum, Newark, N. J., Section 10.

Vice presidents beginning their second year of service are George M. Crossgrove, Montreal, Quebec, Can., Section 1; Eleanor Ervin, St. Louis, Mo., Section 4; Lyman B. Woodard, Columbia, S. C., Section 7; Joseph H. Cromwell, Baltimore, Md., Section 8; James D. Furman, New York, N. Y., Section 11; and John M. Dick, Boston, Mass., Section 12.

This year marks the TPA's 50th anniversary.

Mr. Koch has been senior vice president of the Frederick H. Reid chapter during the past year.

His telephone career began in 1923 when he joined the Mountain States company as a student. After holding various posts in Colorado and Utah, he became general commercial manager for the company in 1945, a vice president in 1949 and president in 1952.

Mr. Koch serves on the Business Advisory Panel of the President's Committee for Traffic Safety and is a trustee of the University of Denver.

Erskine N. White, whose home is in Winchester, Mass., belongs to the Thomas Sherwin chapter. He started his Bell System career with the AT&T Co. in New York in 1923. He joined the New England company's commercial department in 1929, became vice president in 1945 and president in 1956.

Mr. White is a trustee of the Committee for Economic Development.

Mrs. McKenney, staff supervisor with The Pacific Telephone & Telegraph Co., is president of Southern California chapter.

Mr. Nelson, district manager for the Northwestern Bell Telephone Co., is currently president of Hawkeye chapter.

Mr. Ruggaber is general personnel supervisor and secretary of the Employes' Benefit Committee for the Wisconsin Telephone Co.

Mr. King is general traffic supervisor with the Ohio Bell Telephone Co.

Mr. Roche, plant supervisor with The Bell Telephone Co. of Pennsylvania, is Kinnard chapter president.

Mr. Baum is assistant vice president-personnel, for the New Jersey Bell Telephone Co.

British Telephone Plans

During 1961-62, about 100 of the remaining 820 manual telephone exchanges in England will be converted to automatic operation, the British General Post Office has announced. By March 1962, it is expected that about one quarter of the total number of subscribers in the country, about 1¼ million, will have direct distance dialing. The Post Office also has plans for the construction of 150 telephone exchanges.

a FIRST look . . .

New Airtronics MULTI-PURPOSE, PORTABLE test hybrid set

CHECK THESE SPECIFICATIONS

120 P Repeat coil hybrid, specially adjusted for high trans-hybrid balance

128 type low pass filter

Precision 1% capacity decades on NBO

Internal switching provided for two most commonly used networks

Plug-in network arrangement, compromise net built in

Line and Net simplex leads brought out to pin jacks on front panel for special testing procedures

Convenient panel lay-out, jacks and binding posts to facilitate connection to line or external circuits

600 ohm impedance on 4 wire legs

900 ohm impedance on line, (a built-in switch permits change to 1500 ohm impedance line)

ALSO AVAILABLE

External decade capacitor and variable resistor (3 terminal) for use in locating cable opens, for compromise net, etc.

Plug-in dial to facilitate testing procedures

- **makes acceptance tests easier, faster**
- **locates cable opens accurately**
- **accommodates standard networks**

Now, a completely portable precision test hybrid for transmission engineers and testers — ruggedly built, and packaged for maximum convenience and flexibility. Use Airtronics new Test Hybrid Set for cable and trunk acceptance tests, circuit evaluation, capacity balance tests, acceptance and evaluating tests using Singing Point or Return Loss techniques, plus other specialized applications. Use it, too, to locate — with *Airtronics unique new "Cable Locator"* — some of those "lost" cable pairs currently unavailable for use because of opens! This exciting innovation in telephone test equipment determines, with new accuracy, distance to an open end — by a capacity comparison method, with capacity measured to ±1%.

Modernize — simplify — your testing procedures with the new Airtronics Multi-purpose Portable Test Hybrid Set, Model 20B. It is designed to use standard type 115H or 115AL Precision Networks, available in all toll offices.

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Courts and Commissions

New Rates Approved for Ga. Company After Toll Study

The Georgia Public Service Commission, in an order dated Mar. 22, has approved new rates for the Commerce Telephone Co. to replace those authorized in an order of Nov. 16, 1960 (TELEPHONY, Dec. 17, 1960).

The company, on receipt of the order of last November, filed a motion for rehearing, and reconsideration with respect to the commission's estimate of toll revenues to be realized by the Commerce company under its current REA construction and extended area service program.

After a comprehensive study by the commission of the company's toll revenues, claimed by the Commerce company to be necessary to meet financial and service obligations when construction and service improvements are completed, the Georgia commission issued the new order. It stated that "it appears that the company's toll revenues will, when experienced, be less than as predicted by the commission's original order" and that "new local service monthly rates should now be prescribed," which, the commission feels, will give the company an "adequate" return.

New rates approved for the Commerce company are as follows:

	Jefferson Braselton Pendergrass* Commerce	Homer Maysville Nicholson*
One-party business	$7.75	
Two-party business	6.25	
Four-party business	5.25	
Rural multiparty business	5.50	
One-party residence	4.75	
Two-party residence	4.00	
Four-party residence ...	3.50	
Rural multiparty residence	4.25	

* — to be established.

Uphold Pension Adjustment For Social Security

The adjustment of company pensions by one-half the amount of Social Security payments has been upheld by a federal court in a suit brought by six retired New York (Bell) Telephone Co. employes.

Judge Irving R. Kaufman of the U. S. District Court in Manhattan ruled that the plaintiffs had "failed to establish that any of the amendments to the company's pension plan, or any deductions from payments under the plan, constituted an infringement of their contractual rights."

Adjustment of pension plans to avoid duplication of government pensions was provided for when the company's pension plan was created in 1913.

Under Social Security, employers and employes contribute equally. Companies generally adjust pensions to take into account that portion of the Social Security benefit toward which they pay.

Nebraska Exchange Boundary Maps, Incorporation Filed

All but 10 of the 102 telephone companies in Nebraska have filed exchange boundary maps with the Nebraska Railway Commission, it was reported on Apr. 3. This is in compliance with a law passed in 1959 by the state legislature.

The Nebraska commission had set Mar. 31 as the deadline for filing the maps, but stated that extensions would be granted if reasonable grounds were shown. The 10 companies not complying operate single exchanges.

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Also, on Apr. 3, articles of incorporation were filed with the Nebraska Secretary of State by the Farmers Fairview Telephone Co., Crofton, with 23 Crofton residents as incorporators. This is a non-profit corporation.

Ohio Independent Secures Rate Raise

The Citizens' Telephone Co., Rock Creek, has gained authorization from the Ohio Public Utilities Commission to raise its rates for dial service as follows, effective Apr. 1:

	Old	*New*
One-party business $7.00		$10.00
One-party residence	5.25	6.50
Five-party residence	4.25	5.00
Ten-party rural business.	5.50	7.50
Ten-party rural residence	4.50	5.25

The old rate carried a discount of 25 cents if paid on or before the 15th of the current month. The new rate will carry a penalty of 35 cents if not paid on or before the 15th of the month.

Commission Dismisses SBT&T N. C. Rate Investigation

The North Carolina Utilities Commission on Apr. 6 dismissed an order calling for an investigation of Southern Bell Telephone & Telegraph Co.'s rates, stating that if a reduction is in order, it can be accomplished in another case involving a commission investigation of intrastate long distance rates by all telephone companies (TELEPHONY, Dec. 27, 1958).

The investigation of Southern Bell's earnings came about as a result of the company's request for authorization automatically to regroup and reclassify its exchanges. The request, filed three years ago, never has been approved, although specific regrouping proposals have (TELEPHONY, July 5, 1958). Under the automatic plan, telephone companies could raise or lower rates for certain groups without bringing a rate case before the commission.

The commission in December, 1958, ordered Southern Bell to extend the base rate area of some of its North Carolina exchanges and to reclassify certain exchanges into higher-paying rate groups, which it said, should be accomplished without any over-all increase in revenues.

In its latest order, the North Carolina commission, though dismissing the order for an investigation of the company's rates, raised the question whether Southern Bell's rates are excessive.

Commissioner Thomas Eller, in a "concurring" opinion attached to the current order, said that "for more than two years our auditing staff has reported Bell's earnings—earnings which we ourselves recognized as excessive in a recent letter to Bell."

While not objecting to "dismissing this meaningless retention of a case on the dockets," Eller said the commission

(Continued on page 44)

PHILCO MICROWAVE SYSTEMS

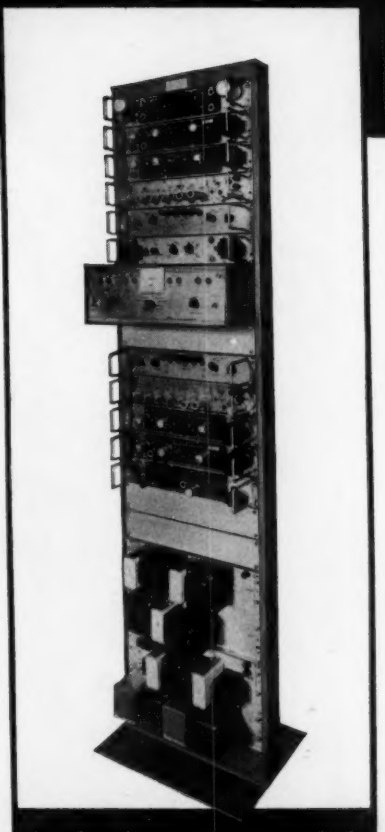
...for dependable, flexible, economical telephone communications

Custom designed to meet your specific requirement, Philco microwave systems provide highly reliable, unattended, point-to-point communications facilities for voice, teletype and high-speed data transmission.

Philco systems feature the CLR-9 duplex terminal, with wideband composite signal, and assure minimum maintenance and significant economies of operation.

Why not discuss your requirements with Philco engineers?

Inquire too, about Philco Turnkey Services—Site Survey • System Planning • Installation • Field Service



Philco CLR-9 Microwave Relay ... with 240 voice channel capacity. Available in Common Carrier, Industrial and Government bands

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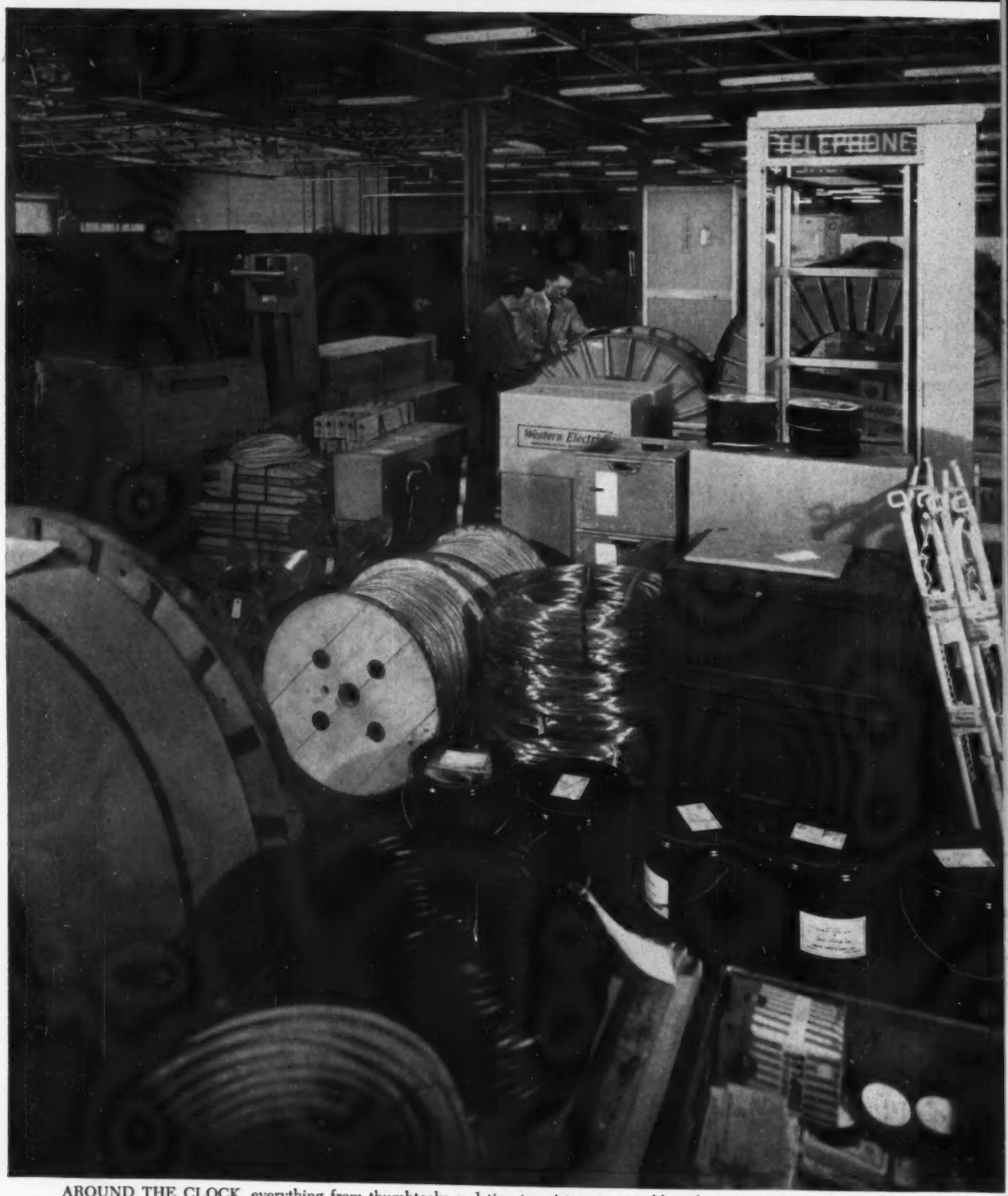
WESTERN ELECTRIC AND



AROUND THE CLOCK, everything from thumbtacks and tiny transistors to switchboards and telephone booths flows into Western Electric's supply channels for the Bell Telephone System. Shown on a shipping platform are just a few of the many thousands of items that W.E.'s 33 distribution centers keep constantly on hand for the local Bell telephone companies.

LOGISTICS

As specialists in logistics — the art of assuring the right products, materials, supplies, at the right place, in the right amounts, at the right time — Western Electric helps meet the requirements of the Bell telephone companies in providing reliable, ever-improving telephone service.

Western Electric, as manufacturing and supply unit of the Bell System, is organized to provide whatever the Bell telephone companies request, on a daily basis or a long-range basis, to fulfill the communications requirements of their subscribers.

This is a logistics task that requires the closest integration of Western Electric's plants, distribution centers, transportation companies and nearly 40,000 suppliers located throughout the country. By its nature, it is a large and complex operation encompassing almost every item used in the vast nation-wide telephone network.

To manufacture or obtain this equipment and transport it wherever it is needed, exactly when it is needed, calls for an organization fluidly adjusted to the ever-changing needs of the Bell telephone companies, who are constantly at work finding ways to improve their service.

As examples of the scope of its logistic role, Western Electric will in an average year:

- Manufacture miles of wire and cable, countless switching units, electron tubes, and thousands of other items, each varying in number from one to many millions.
- Purchase over $1¼ billion worth of materials and services from nearly 40,000 different suppliers — 90% of whom are classified as "small businesses."
- Distribute to the 23 Bell telephone companies nearly 25 million items a year through our 33 strategically-located distribution centers.
- Install central telephone office switching equipment at 67,000 separate jobs in 7,200 cities and towns throughout the country.
- Ship products and supplies via 400 railroads, 3,600 truck lines, 60 air lines and 30 water shipping companies.

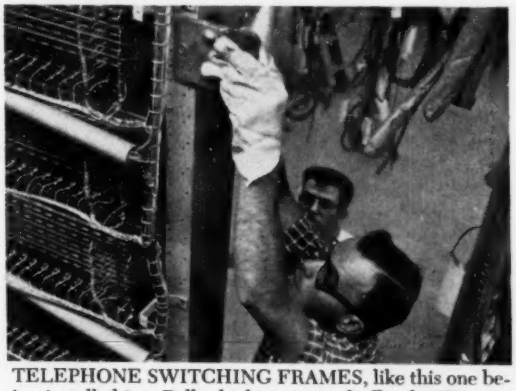
This extensive logistics experience, coupled with our close association with the other members of the Bell System — Bell Telephone Laboratories and the Bell telephone companies — has also made Western Electric uniquely fitted to head-up communications-oriented defense tasks for the U. S. Government. These have included responsibility as prime contractor for DEW Line, SAGE, White Alice, and the communications aspects of BMEWS.

Western Electric

MANUFACTURING AND SUPPLY UNIT OF THE BELL SYSTEM

EMERGENCY SUPPLY program includes standing arrangements with U. S. carriers to facilitate instant shipping of materials when disaster is most likely to strike. Above, telephone supplies from a Western Electric supply center are air-bound for a hurricane-devastated area.

LST DELIVERS THE GOODS to an Arctic beach. This ship was one of many that raced against time to bring supplies to the DEW Line. Western Electric was prime contractor for this vital defense communications system which guards the United States from the Far North.



TELEPHONE SWITCHING FRAMES, like this one being installed in a Bell telephone central office by Western Electric personnel, are scheduled through manufacturing and shipping to arrive at central office locations — ready for installation — exactly on the dates they are required.

is required by law to determine the matter "without further delay."

The letter to which Commissioner Eller referred was sent to Southern Bell on Mar. 15 by commission Chairman Harry Westcott, and stated that on the basis of an audit, "it appears that an adjustment of earnings is in order."

The order dismissing the case against Bell, and including Bell in the over-all investigation, stated:

"It is a fact that a disparity exists between intrastate toll rates in North Carolina and interstate toll rates .... A considerable part of the operating revenue of each of the telephone companies is derived from toll service. It is apparent that any reduction in toll rates will affect the revenue of all companies, including the subject utility."

In his concurring opinion, Eller said he repeatedly has argued that the law "impose upon us the duty of taking direct action by formal inquiry in all cases where a utility's rate of return appears excessive and is not voluntarily reduced. Whether we do so by retention of a docket number, or create a new one is immaterial. The statute reads '. . . at all times . . .'"

Seek Sale Approval in Ill.; OK Dropping Report Charge

The Beason Telephone Co. has asked the Illinois Commerce Commission for approval of its petition to sell its property to the Deer Creek Telephone Co. The Deer Creek company has requested a certificate of convenience and necessity covering the territory served by the Beason company.

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Also in Illinois, the commission approved Southwestern Bell Telephone Co.'s schedule, eliminating report charges on intrastate long distance telephone calls, effective Apr. 3.

General Company Raises Rates at Iowa Exchange

The General Telephone Co. of Iowa has increased rates at its Strawberry Point exchange effective Mar. 26. The company will complete dial conversion of the exchange this year.

New and old rates are as follows:

	Old	*New*
Business	$8.75	$9.00
Rural business	6.50	7.00
One-party residence	5.25	5.25
Two-party residence	4.75	4.75
Four-party residence	4.25	4.50
Rural residence	4.25	4.75

Ask Financing OK in Mo.

The Southwest Dial, Inc., Cassville, on Mar. 29 filed an application with the Missouri Public Service Commission asking for permission to issue 290 shares of common stock and 500 shares of 6 per cent preferred stock.

Rear Adm. Henry Caldwell (left), commander of 17th Naval Air Base, at Kodiak, Alaska, telephones Col. George F. Rogers, C. O. of U. S. Army Alaska Communications System (ACS), at Seattle, Wash., during recent inauguration of "XY" dial exchange of Kodiak Telephone Co. John Cushing, president of the Kodiak company is standing by. Connections from Kodiak Island to major switching points in U. S. use ACS.

General of SW Gets Raises At Okla., Tex. Exchanges

The following rate increases became effective in exchanges of General Telephone Co. of the Southwest during the month of March, 1961:

	Old	*New*
Avant, Okla.; conversion to dial; 150 stations; Mar. 16.		
One-party business	$4.75	$ 8.50
Two-party business	— (New)	7.50
One-party residence	2.50	4.75
Four-party residence	1.75	3.25
Beckville, Tex.; dial; 225 stations; Mar. 1.		
One-party business	9.50	10.00
Two-party business	8.00	8.50
One-party residence	5.25	5.50
Two-party residence	4.25	4.50
Four-party residence	3.50	3.75
Spearman, Tex.; dial; 1,283 stations; Mar. 6.		
One-party business	8.50	11.50
Two-party business	6.75	9.00
One-party residence	4.50	5.50
Two-party residence	3.75	4.50
Weinert, Tex.; dial; 63 stations; Mar. 6.		
One-party business	8.50	9.50
Two-party business	7.00	8.00
One-party residence	4.75	5.25
Two-party residence	3.75	4.25
Four-party residence	3.00	3.50

Ask Loan OK in Arkansas

Mountain Home Telephone Co. on Mar. 29 asked the Arkansas Public Service Commission for permission to borrow $500,000. The company plans to obtain a loan from Stromberg-Carlson Corp. and to convert to a dial system. Mountain Home operates in Norfork, Gamaliel, Lake View and Henderson and the surrounding rural areas.

Rates, Tolls, Current Value Considerations in Neb. Bill

After a hearing on Mar. 29, the judiciary committee of the Nebraska Legislature held for later action a bill, LB507, providing that all rates for local telephone service and intrastate toll service shall be prescribed by the Nebraska Railway Commission and that "where two or more telephone companies jointly furnish such local or long distance service, the revenues . . . shall be divided in such manner as may be agreed upon between the companies furnishing such service."

The present statute provides that long distance rates within the state shall be based on air line mileage between points, and at least 15 per cent shall go to the company where the call originated, and 10 per cent to the company where the call terminated, with the remainder divided pro rata on a line-haul basis.

The bill also provided that "in determining the valuation of telephone property for the purpose of fixing fair and reasonable rates, the commission shall give primary consideration to the *current value* of such property . . . and shall give such consideration to any other factors as may be just and proper."

The bill was supported by the Nebraska Telephone Association and others in the industry. Two of the three Nebraska Railway Commissioners, Richard H. Larsen and Wayne R. Swanson, appeared in opposition to giving "current value" the primary consideration in setting rates.

Approve Sale in Missouri

The Missouri Public Service Commission on Mar. 28 approved the sale of the Summersville Telephone Co. to the Modern Telephone Co., Springfield (TELEPHONY, Mar. 25).

Lorain (O.) Company Holds Breakfast for 61 Firms

Sixty-one out of 74 business and industrial firms invited had a representative at a breakfast meeting sponsored recently by The Lorain (O.) Telephone Co.

The purpose of the program was to acquaint those attending with the many new time-saving aids developed in the field of communications which might contribute to their efficiency and economy of operations.

On exhibit and demonstrated was the following equipment: "Hands-free" telephone, key telephone, Call Director, Electronic Secretary, mobile telephone, Service Observation, Pagemaster and the Electrowriter. At the conclusion of the meeting, every guest was given a well-prepared brochure as a ready reference to efficiency-building communications services that were on display at this meeting.

The Lorain Company commented that it has long recognized that a subscriber educational or merchandising program is one of the most important facets in establishing and maintaining a good customer relationship.

United Stockholders Approve 2-for-1 Split

A 2-for-1 stock split was approved by the stockholders of United Utilities, Inc. at the annual meeting held on Apr. 4 in Abilene, Kan.

The authorized capital was increased to 10 million shares from 3 million, and the par value was reduced from $10 to $5.00 a share. The 2-for-1 stock split resulting from the adjustment in the par value will result in 5,127,958 shares being outstanding. The present annual indicated dividend rate on the new shares is 80 cents.

The company, which provides various services to some 550 communities in 16 states, spent about 25 million dollars on new facilities last year and has budgeted 27½ million dollars for 1961, C. A. Scupin, president, told stockholders.

"It is the policy of the company to secure the broadest possible market for its stock," he said. Present shareholders now number in excess of 16,500. Mr. Scupin stated it is expected the 2-for-1 split will attain for the United System the wider distribution necessary for continued growth.

Ask Ban on Wiretapping

Senator Thomas J. Dodd (D. Conn.) has introduced a bill in the United States Senate which would outlaw all private wiretapping and which would limit taps by police to cases involving national security or serious crimes. The

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bill would impose penalties of up to two years in prison and a $10,000 fine for unauthorized wiretapping.

Neb. Association Endorses Current Value Legislation

The Nebraska Legislature's judiciary committee on Apr. 6 advanced LB 507, which revises the Nebraska Railway Commission's authority to regulate intrastate telephone rates and states that the commission shall give consideration to current value of property in establishing rate bases.

In connection with this legislation, the Nebraska Telephone Association in its 61st annual convention at Lincoln on Apr. 6, approved the following resolution:

"THAT WHEREAS, legislative bill LB 507 now before the Nebraska Legislature provides in part that in determining the valuation of telephone property for the purpose of fixing fair and reasonable rates, the Nebraska Railway Commission shall give consideration to the current value of such property and shall give such consideration to any other factors as may be just and proper; and

"WHEREAS, a consideration of current value in fixing a rate base has the effect of taking a more proper account of current and rising costs, tends to adjust more fairly to the results of attrition and deterioration in the established rate of return, is fair and equitable, and has been recognized as such by a number of state jurisdictions;

"THEREFORE, BE IT RESOLVED, that it should be known to the honorable members of the Nebraska State Legislature that this association considers that such legislation would implement the betterment and expansion of telephone services at reasonable costs, is in the public interest, and should be adopted."

N. D. PSC Urges That Telephone Tax Be Dropped

The North Dakota Public Service Commission has adopted a resolution urging that federal excise taxes on telephones and communications services be discontinued.

Commission President Martin Vaaler said that the tax was adopted as a wartime measure for the purpose of discouraging personal use of the then overburdened communications installations and to increase government revenue.

The NDPSC resolution said that the excises distort telephone rates, have a restrictive effect on the use of communications service, are discriminatory and impair the growth and improvement of communications. The resolution stated that smaller telephone companies are particularly affected.

Propose Street Use Tax for Cal. Telephone Companies

A proposed state constitutional amendment introduced in the California legislature would require telephone companies to pay an annual tax of 1 per cent on business done in California in return for their use of city streets and county roads.

The measure was sponsored by Sen. Richard Richards of Los Angeles, who said it was made necessary when the courts ruled that telephone companies, unlike other utilities, are exempt from the usual franchise taxes paid for the privilege of using public streets for the conduct of company business.

The proposed amendment would impose an annual tax of 1 per cent on local and toll service revenues received by the telephone companies from intrastate communications services and would be distributed to the cities and counties on a population basis.

The levy would be in lieu of all other local taxes, including business licenses, excise, franchise and local income taxes as well as ad valorem taxes on telephone company rights of way.

Southeastern Wash. Group Forms Company

Wheat farmers north of Prosser, Wash., in an area known as Rattlesnake Hills, have formed the West Rattlesnake Telephone Co., Inc., a non-profit corporation, it was reported on Mar. 24.

Contact with Oregon-Washington Telephone Co.'s lines will be made through poles owned by the Benton Rural Electric Association, the report stated.

Incorporators are listed as Thurman Hamilton, F. Homer Tull, LeRoy Crosby, Woodrow Ice, Frank Hamilton, Arthur Dowd, Glen Jones, and Henry C. Anderson.

Don't Need Consumer Counsel C. of C. Head States

Arthur H. Motley, past president, the Chamber of Commerce of the United States and publisher of *Parade* magazine said in a letter to President Kennedy that a proposed White House Consumer Counsel should not be allowed to join the proliferation of government bureaus that intervene before utility regulatory agencies.

In his letter, Mr. Motley stated that the "acts under which these agencies operate already require that they consider carefully the public interest before reaching their decisions."

Private industries are hurt by delays sometimes of months and years in decisions these regulatory agencies make

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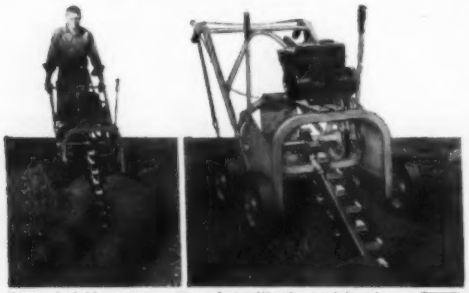
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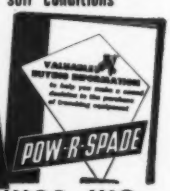

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on rate adjustments, Mr. Motley said. He added: "To add another government agency to the list of the many already participating in these proceedings would undoubtedly compound this problem of delay."

"In many proceedings before regulatory agencies, both federal and state, governmental representatives will outnumber private interests," Mr. Motley said.

To show the scope of the problem, the chamber's president cited a recent action by the National Association of Railroad & Utilities Commissioners that asked that the intervention of one government body, the General Services Administration, be sharply restricted.

IN THE NATION'S CAPITAL

Concluded from page 19

anti-trust convictions in the electric industry, with imprisonment and heavy fines. And more than one large American corporation has suffered conflict-of-interest abuses.

Trade monopoly, rigged prices and specifications to reduce cost competition are all familiar in the history of anti-trust prosecutions. These abuses offend against the public law. The recent electric industry cases have set off a shock wave among business people and it is bound to have salutary and cautionary results. Less familiar to the public is the industry conflict of interest. Typical here would be a high corporate officer who throws business to a sub-contractor not because it can offer the best deal in the economic sense, but because the officer owns a part of the sub-contracting firm.

The American business community is moving in on ethical problems in a variety of ways—and not only since the recent disclosures. DuPont lawyers brief company salesmen at regular intervals on the anti-trust laws. DuPont and other business concerns require key executives to answer detailed questionnaires about outside holdings, directorships, and other relationships which might confuse a man's loyalties to his main job.

This all points to the fact that inherent honesty is always a better assurance of ethical conduct than any code, questionnaire, or statute imposed from outside. But general approbation of the electrical industry convictions indicates how rigorously the business community must police itself if new legislation is to be avoided. A public, thoroughly fed up with the errors of a minority of labor leaders, is not going to be the least bit indulgent of misbehavior by a minority of business leaders.

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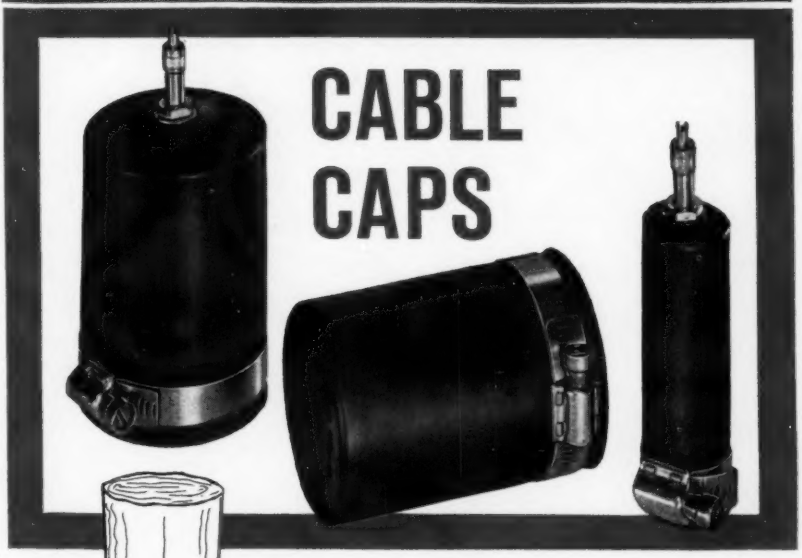

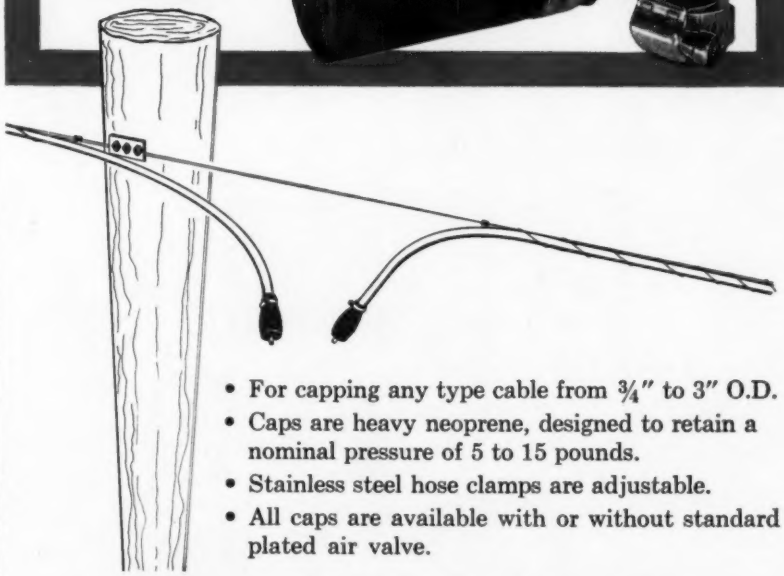

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Continued from page 22

the job requirements, and the effectiveness of the preventive maintenance program, as well as the manner in which the vehicle is operated. Washing, and polishing expense will depend upon how much you wish to spend for appearance purposes.

The effectiveness of management's original decision in selecting the proper type of vehicle for the job, has a lot to do with the subsequent operating expense. Where the normal usage of the vehicle will subject it to loads in excess of the design capabilities of springs, axles, tires, clutch, transmission, or engine, the ultimate result can only be excessive repair costs. There is, of course, no real economy in saving on initial purchase price, only to pay out several times the original saving in excessive repairs, or higher operating expense.

The actual usage of the majority of the vehicles in the telephone fleet involves a comparatively low mileage operation. The typical installation or maintenance truck will actually be driven less than 8,000 miles per year, since its primary purpose is to carry the tools and material from one job location to another, and the craftsman is only productive when the truck is standing still.

During the cold weather season, this type of usage results in a cold motor operation during most of the day, since the vehicle is never driven far enough at any one time to warm up the engine. Preventive maintenance programs, and oil changing frequencies, should give consideration to this cold motor operation, since it results in far more engine wear than vehicles which are used in "over the road" operation, even at high speeds.

The total miles driven during warm weather is usually low enough to raise a question as to whether any oil changes should be made during this period, as long as the vehicle is operated over hard surfaced roads. But during the period of cold motor operation, the oil never gets hot enough to distill off the impurities, so whatever oil changing frequency is established, it should be concentrated during the cold weather months.

The one common denominator that seems to appear throughout all of this running expense, is the driver. His driving skill, or the lack of it, will have a major effect upon gasoline usage, tire wear, brake lining wear, engine wear, and the entire drive line from the engine to the wheels. The same general principles which control the safe driving of the vehicle also control the efficient operation of the vehicle, and result in minimum repair costs. "Jack Rabbit" starts, and squealing tire stops, are not only violations of good driving practices, but also increase the operating cost of the vehicle in reduced gasoline mileage, and increased repairs.

In order to know what is going on, it is essential that some type of administrative expense records be maintained. Ideas on what kind of expense record is necessary will vary from a complete operating expense on an individual vehicle basis, to an over-all total cost of the major items of expense. Management must decide what it really needs, with full recognition of the cost of maintaining the record, and the actual use that will be made of the data provided.

It is easy to become over-enthused, and set up a lot of detailed data, most of which might be properly classified as "interesting, but useless, information." Sufficient data should be maintained to show how efficiently a group of one particular make of truck is operating, as compared to a group of other similar makes doing the same type of work.

There should also be some kind of a record of major repairs on an individual vehicle basis, so that repetitive failures of the same basic component can be identified, and corrective action taken. This type of record will also bring to light those instances where the driver is causing unnecessary repair expense by the use of improper driving habits.

If, for example, transmissions in a particular group of trucks, normally last through the life of the vehicle, but one particular vehicle now requires a second transmission replacement over a comparatively short life, it looks like the first thing to do is to fix the driver, before putting in any more new transmissions.

Even the best of vehicles, driven by the finest drivers, finally reach a point where they are no longer serviceable, and have to be replaced. While that is obvious, the arguments start when you try to define that point. One expert insists it is a matter of years of time. Another says it is measured in terms of the number of miles driven. Still another says it is neither of these, but is a problem in economics, involving the cost of money, versus increased operat-

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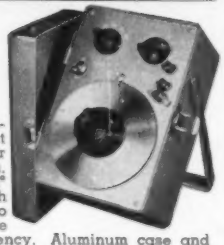

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ing expense, integrated with salvage allowance, and depreciation reserve.

Perhaps, the real answer is, that there is no fixed solution to the problem. First of all, management must make up its mind why it really wants to replace the vehicle. Is it because of style obsolescence, general appearance, lack of reliability on the job, high operating costs, impending high repair costs, or a combination of all of these factors? If you are willing to pay the premium for style and appearance, then the average life of the vehicle will, of necessity, be short. If you consider the vehicle as a tool, then you would view it as you do any other mechanical tool, and replace it when it is worn to the point where further repairs are no longer practical.

Regardless of what basic concept of replacement is adopted, it is essential to recognize that as each vehicle approaches the latter years of its life, it reacts like an elderly person, and takes on its own individual characteristics of old age. Consequently, an efficient replacement program must be based upon an individual inspection, and analysis, of each particular vehicle which is approaching the general age, or mileage, at which you would begin to consider replacement.

This individual analysis might well include an estimate of the necessary repairs that would have to be made to keep the vehicle operating for another year, and this should be one of the major factors considered in deciding whether or not that particular vehicle should be included in the replacement program.

In other words, age and mileage, might be used to establish the threshold of replacement, so that as a vehicle crosses over that threshold, it would be included in the annual inspections of vehicles to be considered for replacement during the coming year. However, the final determination of whether it is to be replaced would only be made after the actual inspection and analysis were completed.

There are a number of advantages in handling the replacement program on an annual basis. First of all, it establishes the total capital requirement for the coming year, so that it can be integrated into the over-all construction program. Since the actual purchases are spread throughout the year, it provides the flexibility required to take care of the inevitable changes in specific replacements that will occur.

For example, a vehicle that appears good enough to run another year suddenly breaks down, and the cost of the major repairs required does not seem justified. However, another vehicle that was expected to fall apart before the

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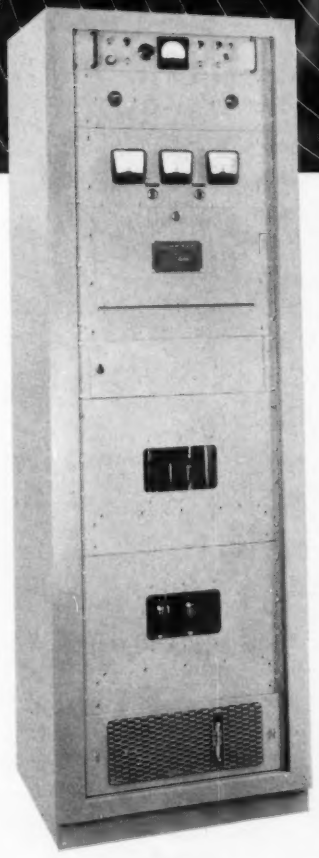

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year was up, still seems to be serviceable. A switch in the planned replacement avoids the added repair cost, and does not change the over-all replacement program. If the vehicles to be replaced during the coming year, are definitely designated, then only such repairs as are required for safe operation need to be made to these vehicles up to the time when they are taken out of service.

The cost of operating the telephone fleet, even under efficient management, still requires a lot of capital and expense dollars. The combined effect of increased vehicle usage, higher unit cost, and higher running expense, tends to keep both the investment, and expense curves going up. The introduction of the compact passenger car, and the economy truck, seems to provide an opportunity to at least level off, if not to reverse the trend of these curves.

Management must carefully consider the application of these vehicles to the telephone fleet. If they will fulfill the basic purpose of taking care of the job requirements, and do it at a lower cost over the entire life of the vehicle, then they should be used. There will be a few individuals who will feel that their prestige has been affected, when they are assigned one of these vehicles, but if management is to manage the business efficiently, they have no choice but to provide the most economical tool that will adequately meet the job requirements. Perhaps, if the use of these vehicles becomes general enough throughout the industry, we will reach the point where some individuals will feel abused because they still have to drive one of those clumsy old vehicles, instead of one of the "more modern" vehicles that everyone else is driving.

"DON'T FORGET THE BEST"

Continued from page 26

am only one small insignificant person. I have no influence, nor persuasive powers. I have to use every minute to keep my business and myself solvent. I have neither the time nor the energy nor the money to expend."

Not long ago I heard a homely phrase that struck home to me. I would like to share it with you, because I feel that it carries an important idea for all of us. The simple phrase was this, "You have to do your own growing—no matter how tall your grandfather was."

"We have to do our own growing."

Believe me it isn't always easy, but in the long-run it is the only basic and full satisfaction that man can have.

Our forefathers saw that and dedicated themselves to providing us with the heritage of personal freedom, of the integrity of the individual, of the rights of personal property, and all the others we value so highly.

Ours is a different time, a different age, a different set of obstacles.

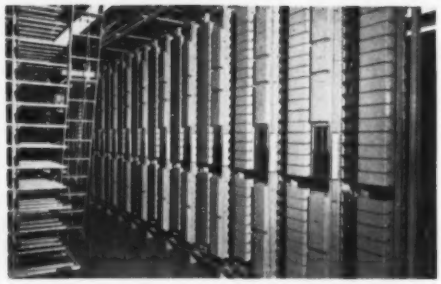
As a nation, most of us have sat idly by while the size, the costs and the controls of our centralized government have grown by leaps and bounds.

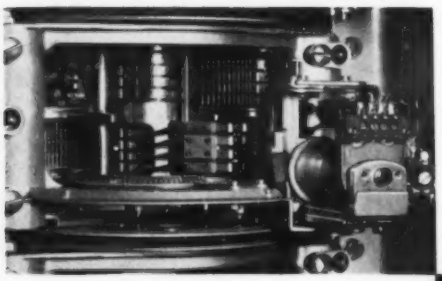
Government in Business

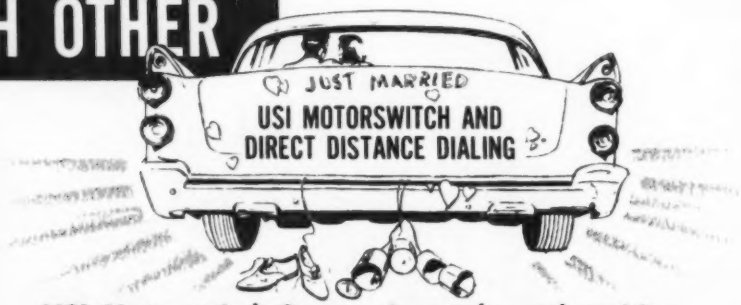
We see our centralized government operating thousands of businesses in competition with private individuals and companies. We see billions of dollars taken from taxpayers to "support" others, knowing full well that, in the future, even greater taxes will be taken from other, younger taxpayers to support those whose personal finances are currently being depleted.

Are these the things that protect people from all-powerful government?

MADE FOR EACH OTHER







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Or are they the means which all-powerful governments use to further entrench themselves?

We know that the external enemy has stated that its all powerful government must eventually dominate all the earth. We know how it has gained and held power in the nations it already controls. How large and powerful can our own central government become and still leave existent in the people the strength and the will to "do their own growing"?

To many who view the scene with careful scrutiny it looks very dark—to some even hopeless.

But not so to me. I cannot concede that "the whole world stinks." My faith is in the American people. Never have they failed to dedicate themselves fully to the solving of their problems once they have grasped their full import and have found a way to begin the solution.

I feel sure that when Lincoln spoke the closing lines of his Gettysburg address he foresaw the continuing and increasing problem of keeping our nation at its best. I am sure that he looked beyond the aftermath of the Civil War — and envisioned situations such as we face today. I feel sure that he was speaking down through the years to you and to me when he said:

"That we here highly resolve that these dead shall not have died in vain—that this nation under God shall have a new birth of freedom—and that the government of the people, by the people, for the people, shall not perish from the earth."

Faith in American People

Again I say "I have faith in the American people"—in you—and in myself.

I know that it demands a higher plane of living—and of working—for all of us. I know that it demands of us greater restraints in our personal living, a deeper dedication to our homes and families, a fuller participation in the worthwhile affairs of our communities, greater and more personal helpfulness to those who need our help, a greater acceptance of the full responsibilities of the jobs by which we earn our livelihoods, a deeper feeling in our religious practice—in short, a growing increase in our services to our God, our community, our families, and through them, to ourselves.

It means deeper thinking—that we may know and *understand* the basic laws of God, of nature, and of the progress of man. It means a fuller recognition of the principles underlying the founding of our country, their contributions to our growth and greatness, and the urgent insistence that they must not be violated.

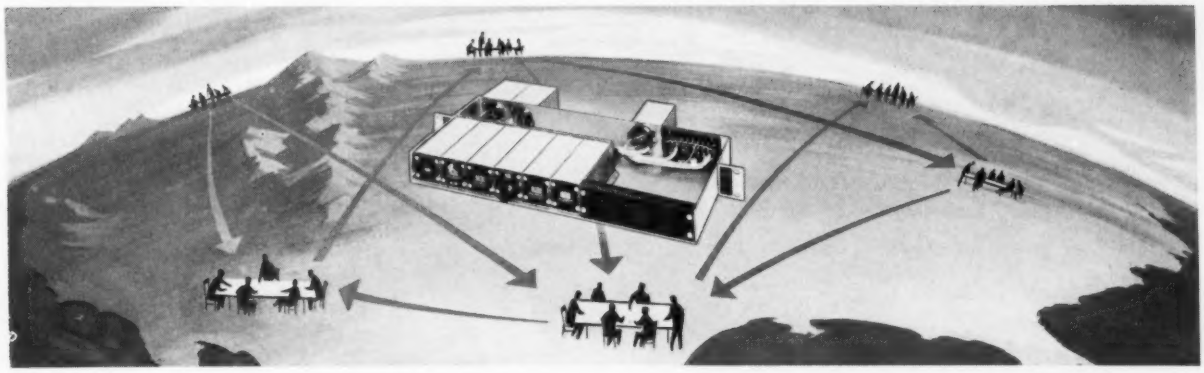
Active Fighting Needed

It means actively fighting against things, too. Against the elements in our life that violate sound laws and principles: against graft and political chicanery; against unfair advantages given to individuals or to groups; against those who seek to take our freedom or our integrity from us; against unfair and unethical use of power; against unnecessary and unfair taxes; against the dangers of an all-powerful centralized government which uses our money to further its own growth, its dominance and its control—yes, and if need be, in physical war against enemies that attack us.

"But," you ask, "what are the specific things that I as an individual can do?"

The answer to that question can come from only one source—the individual himself. You must answer for yourself. I must answer for myself. Each of us knows best where he himself stands. Each knows best what limi-

NEW...ALTEC LOUDSPEAKING TELEPHONE SYSTEM FOR INTER-OFFICE TELEPHONE CONFERENCES COAST-TO-COAST



Now, Derive Unlimited Extra Revenues from Existing Lines with This Important Advance in Telephone Service!

Coast-to-Coast inter-office telephone conferences with many talkers at each location are now possible with the new ALTEC 7302 Loudspeaking Telephone System. The 7302 is a fully transistorized system that maintains uniform talking and listening levels regardless of distance with speech transmission of such great fidelity that familiar voices are recognizable instantly. With an effective audio coverage of a large size executive office, the system offers freedom of movement and comfortable hands-free operation to large groups of talkers.

The 7302 operates on *existing telephone lines* in conjunction with type 510 set or equivalent. Associated ALTEC equipment includes the 755C Loudspeaker and one of the following ALTEC Cardioid Microphones: Models M-30, 683A, or 685A. The 7302 mounts in standard 19″ relay rack and occupies only 1¾″ rack height. Power is supplied to the system from central office or PBX quiet battery supply of 24-26 v DC.

This system—now in use by a nation-wide retailer and a drug chain—provides the answer to their needs for instant consultation among their executives at branch offices throughout the country. With this system, you can now fill the many requests for this type of service from brokerage houses, military command facilities, and any organizations requiring group discussion of problems among specialists in separate locations. For complete information write Dept. T-A4.

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tations he has placed upon himself. Each knows best what his strengths and weaknesses are. Each knows best where his greatest interest and effectiveness lie. Each knows best how to work to gain his greatest stature.

One of the greatest bits of advice I ever received was couched in these words. "When you face a problem or a decision, ask the advice of as many people in whom you have confidence as you wish. But when you have their advice, remember that you must make your own decision—because you are the one who has to live with yourself."

This is what makes America. This is what constitutes the integrity of the individual. This is the basis of our freedom—the greatness of our heritage—the hope of our nation and of the world.

Let us, with Lincoln, re-dedicate ourselves. Let us heed the call of John McCrae when, in his poem "Flanders Field," he said:

"To you from failing hands we throw
the torch
Be yours to hold it high.
If you break faith with us who die
We shall not sleep though poppies
blow in Flanders Field."

This must be the dedication of every American, with this our slogan—"Take what you want, but don't forget the best."

IRE-AIEE Set Program Plans for Globecom V

Arrangements have been completed for the Fifth National Symposium on Global Communications, which meets at the Hotel Sherman in Chicago, May 22 to 24 (TELEPHONY, Mar. 25).

The conference is sponsored by the American Institute of Electrical Engineers (AIEE) and the Institute of Radio Engineers (IRE) Professional Group on Communications Systems.

According to Dr. W. L. Firestone, general chairman of Globecom V, over 1,000 engineers, scientists, and managers are expected to participate in the symposium. Eighteen sessions of technical papers, covering all phases of communications will be presented.

Space communications, switching and transmission systems, and data handling will be featured under the theme "Communications on a Global Scope."

The central social function will be the symposium luncheon on May 23, at which Dr. George E. Mueller, vice president, Space Technology Laboratories, Los Angeles, Cal., will be the principal speaker.

Dr. Firestone announced that a convention record, containing abbreviated versions of each paper, will be provided to all participants as they register at the conference.

Moderators for the technical sessions have been announced by Donald Campbell, program chairman. They are:

R. D. Campbell—American Telephone & Telegraph—Space Communication I.
R. E. Stoffels—Automatic Electric Laboratories—Data Transmission.
Angus A. MacDonald — Motorola — Communications Systems.
W. K. MacAdam — Vice President, American Telephone & Telegraph—A Large Scale Four-Wire Switched Communications Network for Military Communications.
J. N. Petrie—Automatic Electric—System Performance.
W. Lyons—RCA—H. F. Communications.
Prof. E. C. Jordan—University of Illinois—Space Communications II.
Col. J. Z. Millar—Western Union—Modulation Techniques.
Col. W. D. Joslin—U. S. Army Signal Corps—Pacific Scatter Communication System.
H. F. May—Bell Telephone Laboratories—Switching Systems I.
Paul Hurtel Jr.—Collins Radio Co.—Microwave Radio Relay.
Dr. H. P. Messinger—ITT Kellogg—Reliability.
Robert L. Vader — Lockheed — Space Communication III.
V. N. Vaughan—American Telephone & Telegraph—Data Handling.
Nelson B. Tharp — Westinghouse — Forward Scatter.
R. D. Slayton—Teletype—Switching Systems II.
Prof. Albert H. Rubenstein—Northwestern University—System Planning.
Richard C. Benoit Jr.—USAF, RADC—Speech Compression and Spectrum Sharing.

The symposium committee is composed of general chairman, Dr. W. L. Firestone, Motorola, Inc.; Vice Chairman—AIEE, Sidney R. Collis, Illinois Bell Telephone Co.; Vice Chairman—IRE, Robert H. Maier, ITT Kellogg; executive secretary, Charles F. Wittkop, Motorola, Inc.; technical program chairman, Donald C. Campbell, ITT Kellogg.

Arrangements chairman, Robert J. Hajek, Commtronix Engineering; public relations & publicity, Ransom D. Slayton, Teletype Corp.; publications chairman, Edward F. Dirsa, Admiral Corp.; finance chairman, Ray E. Morrison, Illinois Bell Telephone Co.; exhibits chairman, Fred L. Hilton, Motorola, Inc.

Further details on the program and registration may be obtained from the executive secretary, C. F. Wittkop, Motorola, Inc., 1450 N. Cicero Ave., Chicago 51, Ill.

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KENTUCKY CONVENTION

Concluded from page 36

planning to locate in the state. In his talk on the "Kentucky Economic Development Program," he said it is important to satisfy industry already located within the state because of its influence on other business. He cited the example of two businesses which moved to Kentucky from the same town in another state and said the second one came because the first was satisfied.

Other efforts made by Kentucky to induce industry to headquarter there include a mapping program in which all of the state was photographed and compiled into topographical maps available to industry; also a national advertising program which, he reported, stirred considerable interest among businesses.

The convention elected the following directors:

W. R. Bacon of Shepherdsville; D. B. Corman of Glasgow; A. L. Daughters of Covington; P. H. McCrory of Louisville; G. Saunders of Lexington; L. T. Utz of Florence; F. C. Rahdert of Lexington; Dean Stranathan of La Center, and W. W. Thomason of London.

The directors elected the following officers: President, Mr. Daughters; vice presidents, Mr. Saunders and Mr. Utz, and secretary-treasurer, R. F. Kessinger of Lexington.

A STRAIGHT FURROW

Continued from page 29

tered economically. It must be offered and administered in a manner that will not only benefit the recipients, but the participants as well, so that the whole program will reflect upon our nation. We can ill afford anything wastefully idealistic at any time, especially now, when our own economy is in need of sound fiscal policy.

The role to be played by individual engineers in this venture is not clear. However, there is a need for competent judgment as plans for more technical assistance take shape, and certain engineering judgment belongs in the picture.

Perhaps too much emphasis thus far has been placed on youth in the peace corps. There is, at the other end of the age spectrum, a great and growing reservoir of talent in engineering and in our fields as well. I refer, of course, to those who have newly entered retirement. Many are vigorous and eager to keep busy. Their enthusiasm and skill could well be tapped to furnish leadership for technical and other phases of a foreign aid program. The

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elder statesmen of our profession could do much to help make the Peace Corps a good-will army of capable technicians.

Joint Engineers Committee

Further, I'd like to suggest formation of a joint committee of our own professional societies to volunteer guidance and counsel to the administration and Congress in the selection of the best methods of rendering technical assistance ahead. . . . It could bring together a wide range of engineering wisdom and experience. It goes without saying that volunteering in this or any other public enterprise carries with it a responsibility to contribute to the fullest extent of one's capabilities.

The international field is fertile ground into which professional engineering societies might well sink their plowshares, and with their skills open up new areas in which freedom and respect for human dignity will flourish.

If what I've said tonight contributes to that end, if it encourages any engineers to look for further opportunities for public usefulness, then I've been doing what was suggested to me as a philosophy a long time ago—plowing a straight furrow.

But for the harvest to be bountiful, we must do more than persuade students to take up engineering careers and tend other fields in need of cultivation here at home. Important as those things are, they will become academic unless we also meet the Communist challenge on the world's ideological battlegrounds. For, as Emerson said:

> What avail the plow or sail
> Or land or life, if freedom fail?

I offer these observations in the spirit of The Washington Award—named for the man who led our nation to freedom.

Army-Industry Combine Must Cut Costs, Says S. C. Chief

Maj. Gen. R. T. Nelson, the Army Chief Signal Officer, made a bid for industry assistance in Army cost reduction activities recently in an address to the Chicago Chapter of the Armed Forces Communications & Electronics Association (AFCEA).

Expressing great concern over "the ever-increasing cost of equipping our combat forces," General Nelson challenged industry to find ways in which these costs might be reduced.

"Price *is* an object" was the theme of his presentation to over 400 members of AFCEA and representatives of the communications-electronics industry.

"Despite any accusations you may have heard about waste in Army operations, cost is of paramount concern to us," General Nelson emphasized. "This subject is currently of paramount interest and concern to the Army staff at the highest levels."

In a careful analysis of the factors involved in the abnormal increase in Army equipment costs in recent years, General Nelson pointed to the increased quantities of equipment authorized, the higher quality of performance demanded, the new technology involved, and to the inherent difficulties in drawing up definitive specifications for research and development contracts, and correctly estimating the cost of those representing an advancement in the "state-of-the-art."

"Operational concepts in modern warfare require wider dispersion and greater mobility of our forces," General Nelson explained. "This means more and better communications and an improved capability in combat surveillance, target acquisition, air traffic regulation and control, and automatic data processing. A current Infantry division, for example, is authorized 40 per cent more items of communications-electronics equipment than an Infantry division in 1950."

Conceding the general necessity for superior equipment to meet modern combat capability needs, General Nelson questioned whether too great emphasis has been placed upon stringent military characteristics which require *superior* designs where perhaps *excellent* would suffice.

"Optimum requirements for equipment are responsible, in my opinion—more than any other factor—for today's high total cost of communications equipment," he stated. Urging the acceptance of some compromise on standards, he revealed that he had directed Signal Corps technical experts to eliminate "frills and nice-to-have items," and to limit costly specification changes to those representing a marked contribution to actual combat effectiveness.

Reviewing actions taken by the Army, and specifically, the Army Signal Corps, to reduce costs and insure "more equipment for the military forces for the same amount of money," General Nelson emphasized that such efforts must be a mutual endeavor of the "Army-industry team upon whom our nation places such vital dependence."

Inviting the views of industry on costs, "in all their aspects," he urged contractors to be alert for features "which may be too costly, and where we may not get our money's worth."

Relating problems in cost reduction to problems in reducing "over-all lead-time," he pointed out the effect of these upon the "quality and adequacy of our support to our combat forces."

"These are matters of compelling concern to you," he said, because of their effect upon the number and amounts of contracts that can be let—and to whom.

"The communications-electronics industry has ably met every challenge the Armed Services have placed upon it in the past. I am sure they will meet this new one . . . ," he concluded. "This challenge of price we must meet—as a team—if we are to provide that which must be provided for the defense of our country without seriously weakening our national economy."

General of Kentucky Reports Personnel Changes

The appointment of James A. Ramsdell as general traffic manager has been announced by the General Telephone Co. of Kentucky. Mr. Ramsdell will succeed J. A. Reitze who was recently appointed traffic administrator for GT&E Service Corp., New York City.

Also announced by the General company was the appointment of Robert M. Rodes, central division traffic superintendent, succeeding Mr. Ramsdell as general traffic engineer.

Donald A. Beile, the eastern division traffic superintendent at Ashland, Ky., was to be assigned new duties as division traffic superintendent for the central and eastern divisions, with headquarters in Lexington, Ky.

Mr. Ramsdell, a native of West Virginia, started his telephone career with the Ashland Home Telephone Co., a predecessor company of General Telephone Co. of Kentucky, in 1948, as a central office repairman at Ashland, Ky.

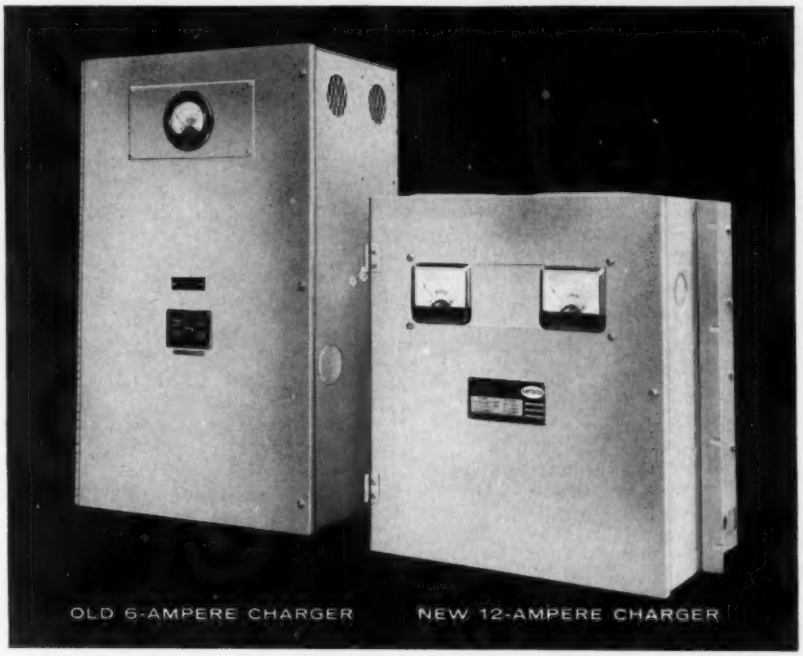
He subsequently held positions of responsibility in the company's plant, engineering and traffic departments, and was appointed general traffic engineer in 1958.

Mr. Rodes, a native of Danville, was graduated from Centre College in 1951 with a bachelor of arts degree. He joined General Telephone in 1957 as a traffic engineer.

Mr. Beile, a native of Indiana, became associated with Lexington Telephone Co., a predecessor company of General Telephone Co. of Kentucky, in 1951, in the engineering department. He served as eastern division traffic superintendent from 1957 until now.

NARUC Plans Annual Meet

The National Association of Railroad & Utilities Commissioners plans to hold its annual convention Sept. 25 to 28 in Atlantic City, N. J. at the Chalfonte-Haddon Hall Hotel.



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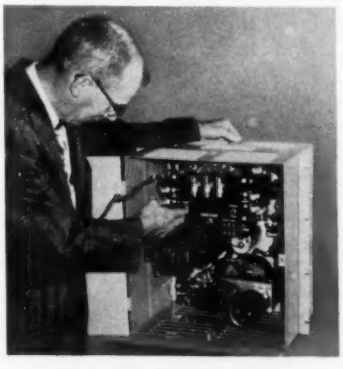

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C. of C. Head Urges Reform Of Federal Tax System

Major reform of the "jerry-built" federal tax system would spur the economy and help create much-needed jobs, Arthur H. Motley, past president of the Chamber of Commerce of the United States and publisher of *Parade* magazine pointed out in a recent speech.

Mr. Motley, addressing the National Association of Retail Clothiers and Furnishers, endorsed tax reform legislation such as the Herlong-Baker bill now pending before Congress.

While this legislation would scale down tax rates, Mr. Motley said, in the long run it would also result in a net gain in federal tax revenues. He stated:

"On an average, the increase in federal tax revenues has been running about 3 to 4 billion dollars a year. This increase in revenues would be tapped by Herlong-Baker, to finance the bill. This is to say, tax reform would return this money to taxpayers, to stimulate more growth in the economy. In time, the stimulation would produce more federal revenues."

Mr. Motley pointed to studies which have shown it takes an average of $10,000 to $20,000 in initial investment to put an employe in a job. Continuing on this theme he said:

International Teletronics, Inc., recently held a symposium in Spokane, Wash., on Panhandle transistorized carrier systems and transmission measuring devices, which it distributes. Attending were (FRONT ROW, l. to r.): R. McIntyre and Ralph McClaskey, both of Mt. Vernon, Wash., and Vernon Pittsley of Morton, Wash. SECOND ROW: L. H. Schick and O. C. Walter, both of Spokane; G. F. McCarter of Yelm, Wash.; Herb Mundy of International Teletronics; Sandy Nelson and Robert King, both of Everett, Wash. THIRD ROW: George E. Oman, G. H. Oney, W. G. Langford, and Paul Baldinger, all of Spokane. LAST ROW: J. G. Walker of Panhandle Electric Sales, Inc., and K. C. Tompers of International Teletronics. Present, but not in photo: Paul Wenstrom of Gig Harbor, Wash.

"Consider this need, and then look at how our individual income tax rates are set up. These rates weaken the incentives to save and to invest. We have the highest individual income tax rates in the world: Up to 91 per cent on the tax dollar in the top bracket. (And that's before *state* and sometimes *local* income taxes.)

"Such federal tax rates are self-defeating. At the upper levels they border on confiscation. The rates were adopted in war-time, when they were said to be necessary for survival. But, in peacetime, the same rates continue. And worst of all, the tax rates hurt those who are unemployed, those who want jobs, have to have jobs to support their families."

Mr. Motley emphasized that existing tax rates penalize those who work hard for a wage or salary, contributing special skills and talent to the economy. The more these individuals contribute, the more skilled they become, the harder they work, the higher the tax penalty they pay, he said. He stated that taking income tax shackles off our citizens will take brakes off our economy.

The chamber president sketched provisions of the Herlong-Baker bill. Over a five-year period, this legislation would compress individual income tax rates; from 91 per cent to 47 per cent in the top rates, from 20 per cent to 15 per cent in the low rates, and proportionately in the middle rates. In the same period, corporate rates would be reduced one per cent a year, to 47 per cent.

"Dollars from earnings would be freed from federal tax claims," Mr. Motley stated. "They could go into savings—investment—jobs. Fresh risk

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capital would be released to encourage the start of substantial new businesses, to give fresh impetus for established businesses."

He said a second feature of the Herlong-Baker legislation would provide a better break for businesses in figuring depreciation, helping them to write off new equipment and replacement costs faster. Here again, Mr. Motley said, "The emphasis is on releasing funds that could be plowed back into the business, to create new products, new opportunities, new jobs."

Mr. Motley affirmed that those who favor major tax reform must "sell it" to Congress and the people. He said this calls for a program of action, and cited three National Chamber programs in that field: The Economic Understanding Program, teaching how the American economy operates; the Political Participation Program, a non-partisan course on how to become active in politics; and the Congressional Action Program, which equips businessmen to communicate effectively with members of Congress.

"Nothing speaks so effectively to a member of Congress as an informed constituent," he emphasized. "These three programs . . . all have that in mind. The payoff is action—informed, intelligent, effective action."

H. S. Jeske Is President Koehring Kwik-Mix

Harry S. Jeske, manager of the Koehring southern plant at Chattanooga, Tenn., has been appointed president and

H. S. JESKE

general manager of Koehring's Kwik-Mix division, Pt. Washington, Wis., according to an announcement by Julien R. Steelman, Koehring board chairman and president.

Mr. Jeske assumed his new duties on

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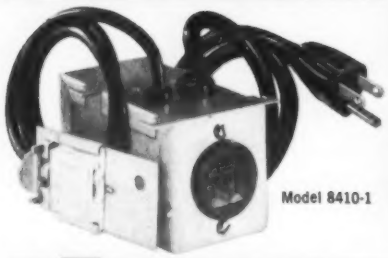

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Apr. 1. He succeeded E. W. Maas, who died on Mar. 17.

With Koehring for 20 years, Mr. Jeske was works manager at Kwik-Mix from 1949 to 1952, when he was transferred to Chattanooga as works manager there.

Later, he became plant manager.

He had joined the company in 1941 as an inspector in the Koehring division, Milwaukee. He progressed to machine shop foreman and chief inspector before going to Kwik-Mix in 1949.

A native of Milwaukee, Mr. Jeske attended Milwaukee public schools and the University of Wisconsin.

J. A. Reitze Is Traffic Administrator GT&E Service

John A. Reitze, general traffic manager for General Telephone Co. of Kentucky, has transferred to GT&E Service Corp. as traffic administrator, according to announcement by Leo A. Birch, traffic director.

Born in Fort Wayne, Ind., Mr. Reitze was graduated from Purdue University with a bachelor of science degree in 1949.

He then joined Home Telephone & Telegraph Co. in Fort Wayne, predecessor company of General Telephone Co. of Indiana.

In 1952, he transferred as traffic superintendent to the Southern Continental Telephone Co., Elizabethtown, Ky., another predecessor company of General Telephone Co. of Kentucky.

J. A. REITZE

He held various positions in the latter company's traffic department, and in 1959, was named general traffic manager.

Mind to Rescue

"It is by presence of mind in untried emergencies that the native metal of a man is tested." — LOWELL, *My Study Windows*.

The United States Instrument Corp. recently completed another type 30 PABX school. Representatives of 10 Independent companies began studies on Mar. 13, and completed them on Mar. 24. Shown, left to right are, FIRST ROW: Everett Crickenberger, U.S.I. PABX specialist; Lowell Smith, Tri-County Telephone Co., Ashland, Ala.; Byron Starr, Warren (O.) Telephone Co.; Dave Slye, United Telephone Co. of Pa., Waynesboro, and Lawrence Marley, Central Telephone Co., Asheboro, N. C. SECOND ROW: C. H. Triplett, Central Telephone Co., North Wilkesboro, N. C.; David Cox, Central Telephone Co., Asheboro, N. C.; J. D. Baldwin, Central Telephone Co., Elkin, N. C., and Howard F. Conroy, U.S.I. instructor. THIRD ROW: John Greene, Elyria (O.) Telephone Co.; John Harris, Central Telephone Co., Hickory, N. C.; James Coleman, Tri-County Telephone Co., Ashland, Ala.; Maynard Amsbaugh, Concord Telephone Co., Albemarle, N. C., and William King, United Telephone Co. of Pa., Roaring Springs.

S-C Credit Corporation Announces Changes

At its recent annual meeting, the directors of Stromberg-Carlson Credit Corp. (a subsidiary of General Dynamics Corp.) re-elected James D. McLean as chairman and Charles W. Pritchard as president. Also re-elected was Carter W. Eltzroth, secretary. Robison Clark was elected vice president and controller.

L. J. CLEARY

R. G. SLAYTON

Lawrence J. Cleary and Robert G. Slayton were elected vice presidents, replacing Phillip J. Lucier and G. Warren Schomaker who have resigned to become president and vice president, respectively, of Telephone Communications Corp., a new holding company specializing in the Independent telephone business.

Ernest W. Stanton and Marvin K. Gage were named assistant vice presidents. Robert M. Meyers was made

Give 'em Private Line Service on Existing Party Lines!

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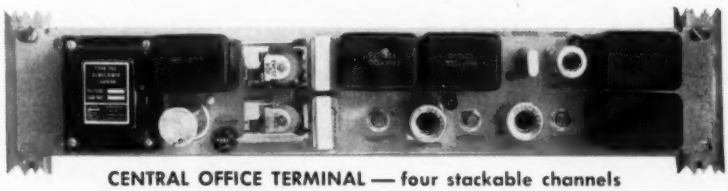
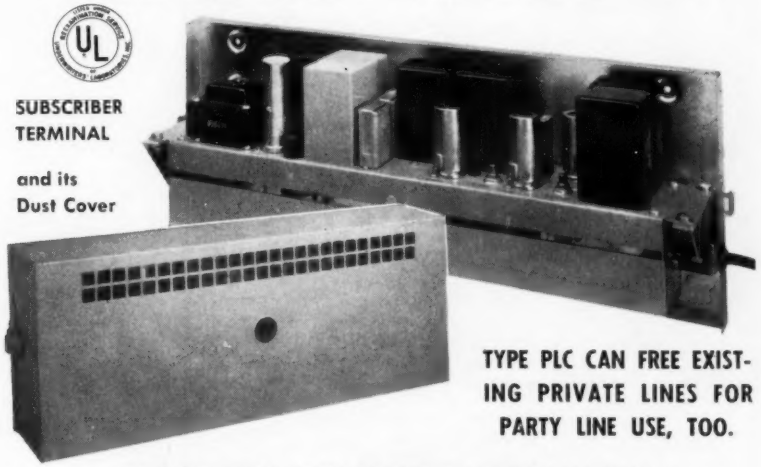


CENTRAL OFFICE TERMINAL — four stackable channels

SUBSCRIBER TERMINAL and its Dust Cover



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treasurer and Paul A. Altpeter, assistant treasurer.

Mr. McLean is president of General Dynamics/Electronics, a division of General Dynamics Corp. Mr. Pritchard is finance manager, Telecommunication Division of General Dynamics/Elec-

M. K. GAGE

tronics; Mr. Clark is controller of General Dynamics/Electronics. Messrs. Cleary, Slayton, Meyers, Stanton, and Gage are all loan officers of Stromberg-Carlson Credit Corp.

E. W. STANTON

The Stromberg-Carlson Credit Corp. was organized 10 years ago last January, to render financial assistance to Independent telephone companies. Over the last decade, more than 600 loans have been made to operating telephone companies, the company reported.

Honish to Represent Union Carbide in SE Region

John B. Honish has been appointed a technical representative in the South Atlantic sales region of Union Carbide Plastics Co., division of Union Carbide Corp.

According to the announcement by V. L. Larson, regional manager, Mr. Honish will be responsible for the sale of Krene brand vinyl film and sheeting and Bakelite brand polyethylene, vinyl, phenolic, and styrene resins and compounds for molding and extrusion applications.

He will be located in the company's Greensboro, N. C. district sales office in the Guilford Building, Room 712 (BRoadway 4-7696).

Mr. Honish is a graduate of Lycoming College where he received a bachelor of science degree in business administration in 1959. After six months of military service, he joined Union Carbide Plastics Co. and recently completed the sales training program at the company's Bound Brook, N. J., plant.

Leich Sales Staff Attends Annual Meeting

Leich Sales Corp.'s annual sales meeting was held at the Wagon Wheel Lodge, Rockton, Ill. from Feb. 27 to Mar. 2.

C. W. Schwob and R. D. Friehe, Leich district managers, were co-chair-

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the DUO-COM 100
WALKIE-TALKIE
Osborne's DUO-COM 100 pocket size walkie-talkie . . . a completely self contained transmitter and receiver that weighs only 20 ounces. No license or permits required . . . may be operated by anyone regardless of age or citizenship with dependable communication ranges up to 5 miles. Operates for pennies and is priced at only $99.50 each or the DUO-COM 100S with an efficient squelch control at $119.50 each.
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327 Fifth Avenue, Pittsburgh 22, Pennsylvania

Session of annual sales meeting of Leich Sales Corp. held at Wagon Wheel Lodge, Rockton, Ill., from Feb. 27 to Mar. 2.

men of the meeting, which was attended by the company's entire sales staff.

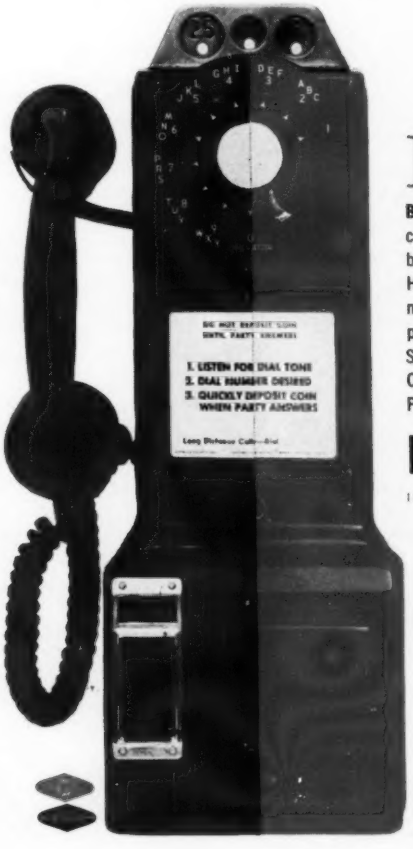
D. C. Gibson, president, announced at the meeting that Leich is continuing to grow and offers its customers large stocks of telephone supplies, giving them fast service. Mr. Gibson also cited the addition of Leich's sixth warehouse in Richmond, Va.

Representatives from each of Leich's departments presented their plans for 1961. Special emphasis was given to the company's financing program which makes loans on dial switching equipment and supply materials to help telephone companies improve service.

The switchboard sales department presented Leich's new 80A-S stock PABX. This system offers the same service features as Leich's 40A PABX. Also announced were the motel-hotel services now available with 40A and 80A PABX's.

The motor vehicle department explained its services to Independent telephone companies in supplying trucks, truck bodies, tires, and batteries.

the magic word is...



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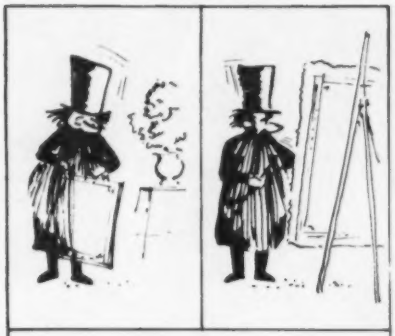

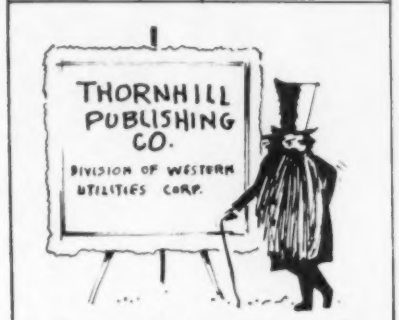

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Wardell Is Superior Cable's New Advertising Manager

Superior Cable Corp., Hickory, N. C., has appointed John J. Wardell as advertising manager. Mr. Wardell joined Superior Cable after serving as advertising manager of Surprenant Mfg. Co., Clinton, Mass.

As an account executive, he also was previously associated with Baratta Advertising Agency in Worcester, Mass., and with the Paul H. Johnson Co., advertising agency, Providence, R. I.

J. J. WARDELL

During World War II, Mr. Wardell was an officer in the United States Eighth Air Force and completed 25 missions over Europe.

He will work under the direction of James H. Bowman, vice president in charge of sales, to coordinate advertising and sales promotion plans involved in Superior Cable Corp.'s current expansion.

The appointment of Sidney W. Gabriel as director of purchases has been announced by J. R. MacDonald, president and chairman of the board of the General Cable Corp. Mr. Gabriel was formerly assistant director of purchases, and has been with the corporation for 35 years.

The Ramset Fastening System has received an "Exceptional Merit" award from the National Association of Home Builders for its publication, "Powder-Driven Fastener Handbook for Architects and Engineers." John N. Schwaller, Ramset advertising manager (left), and Ralph H. Benedict, sales manager, examine the 48-page manual, judged the best 1960 literature "that assists builders in applying or using materials or products."

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International Creosoting and Construction Co., Galveston, Texas.—Creosoted Southern Yellow Pine Poles. Plants Beaumont and Texarkana, Texas.

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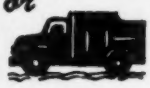
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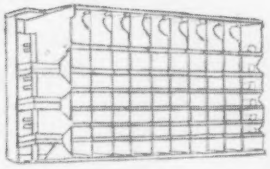

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